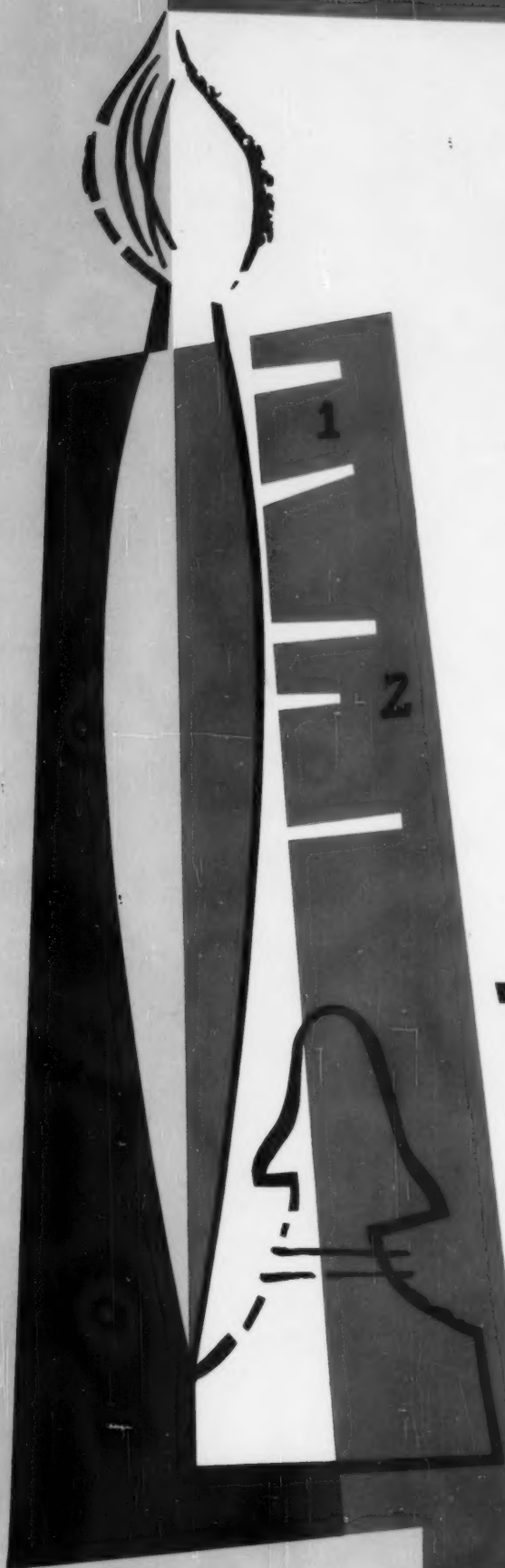
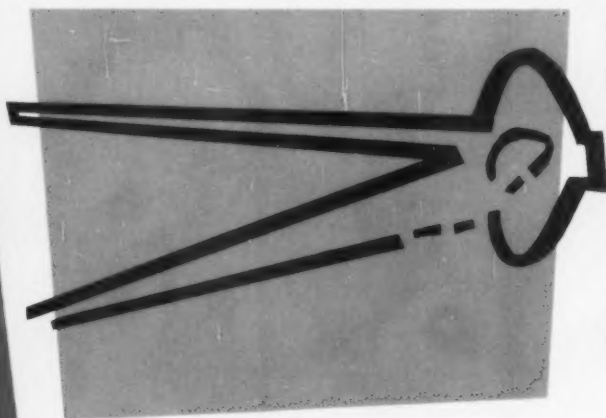
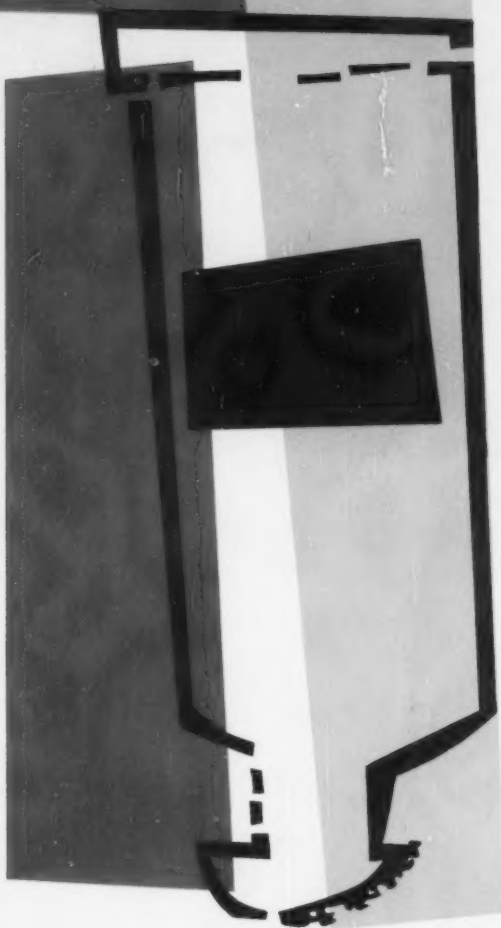


SCHOOL ARTS



Selecting Materials for the Art Program

FEBRUARY 1959 / SEVENTY CENTS

1959 BUYERS' GUIDE



THE
CRAYOLA[®]
MAKERS



380 Madison Ave.,
New York 17, N. Y.

IMAGINATION



Articles indexed in Readers Guide to Periodical Literature and Education Index.
Microfilm copies are available from University Microfilms, Ann Arbor, Michigan.
Member, Educational Press Association of America, Audit Bureau of Circulations.

D. KENNETH WINEBRENNER, Editor
Professor of Art, State University College for Teachers at Buffalo

ROBERT SQUERI, Assistant Editor

CLEMENT TETKOWSKI, Assistant Editor

RITA A. FRITSCH, Editorial Secretary

Send all editorial mail to 400 Woodland Drive, Buffalo 23, New York
Send all business mail to Printers Building, Worcester 8, Massachusetts

Advisory Editors

- MANUEL BARKAN**, Head, Art Education
The Ohio State University, Columbus, Ohio
- ALICE BAUMGARNER**, Director of Art Education
State of New Hampshire, Concord, New Hampshire
- RALPH G. BEELKE**, Executive Secretary
National Art Education Association, Washington, D. C.
- FELICIA BEVERLEY**, Supervisor of Art Education
New Castle County, Wilmington, Delaware
- MAYO BRYCE**, Specialist, Fine Arts Education
U. S. Office of Education, Washington, D. C.
- DOROTHY CALDER**, Art Teacher
Decatur High School, Decatur, Georgia
- HOWARD CONANT**, Chairman, Department of Art Education
New York University, New York
- SISTER MARY CORITA, I.H.M.**, Artist, Art Educator
Immaculate Heart College, Los Angeles, California
- VICTOR D'AMICO**, Director, Department of Education
Museum of Modern Art, New York City
- ITALO L. de FRANCESCO**, Director of Art Education
State Teachers College, Kutztown, Pennsylvania
- HOWARD DIERLAM**, Supervisor of Art
City of Toronto, Ontario, Canada
- C. D. GAITSKELL**, Director of Art
Province of Ontario, Toronto, Canada
- ROBERT D. GOLDMAN**, Head, Fine and Industrial Arts
Abraham Lincoln High School, Philadelphia, Pennsylvania
- ROBERT IGLEHART**, Head, College of Architecture and Design
University of Michigan, Ann Arbor, Michigan
- JEAN JOHNSON**, Supervisor of Art Education
Dade County, Miami, Florida
- PAULINE JOHNSON**, Professor of Art
University of Washington, Seattle, Washington
- ELIZABETH MACK**, Director of Art
City of Charlotte, North Carolina
- MARY ADELINE McKIBBIN**, Director of Art
City of Pittsburgh, Pennsylvania
- EUGENIA C. NOWLIN**, Technical Adviser for Crafts, Special Services
Adjutant General's Office, Dept. of the Army, Washington, D. C.
- ARNE W. RANDALL**, Chairman, Art Department
Texas Technological College, Lubbock, Texas
- RUTH REEVES**, Artist, Designer, Teacher
443 Lafayette Street, New York City
- PAULI TOLMAN**, Supervisor of Art
City of Los Angeles, California
- EDWIN ZIEGFELD**, Head, Fine and Industrial Arts
Teachers College, Columbia University, New York City

Business Department

PAUL GOWARD, Business Manager
WILLIAM B. JENNISON, Advertising Manager
INEZ F. DAVIS, Subscription Manager

Advertising Representative

Midwestern: Dwight Early and Sons, 100 N. LaSalle Street,
Chicago 2, Illinois. Phone Central 6-2184

SUPPORTING MEMBER, NATIONAL ART EDUCATION ASSOCIATION

Cover by Ed Goergens, student of Don Nichols at the Albright
Art School of the University of Buffalo, Buffalo, New York.

VOLUME 58, NUMBER 6 / FEBRUARY 1959

SCHOOL ARTS

the art education magazine

Selecting Materials for the Art Program

SPECIAL ARTICLES

- 5 Rooms for Art Activity, by Edna Meibohm Lindemann
- 9 Art and Man, by d'Arcy Hayman
- 15 Photo-Collage Inspires Scratchboard, by Raymond B. Arnold
- 16 We Let the Sun Print It, by Joanne Cope
- 17 Designing in Metal Foil, by Nancy Belfer
- 19 Elementary Screen Printing, by Edith Brockway
- 21 Art as a Schoolwide Activity, by E. Frances Crimm
- 23 Modeling in Wire, by Gerald F. Brommer
- 25 Pictures with Clay, by Frank Shore
- 26 Gum Arabic, Tempera, by Anna Dunser
- 27 Melted Crayon Masks, by Carol J. Brown
- 28 Parents Help Enrich the Art Program, by Blanche E. Hart
- 29 Making Asbestos Murals, by Leslie Peacock
- 31 Examples of Space Design in Pictures, by Ralph M. Pearson

REGULAR FEATURES

- 2 Using This Issue
- 2 News Digest
- 33 Issues of the Day
- 35 Annual Buyers' Guide and Directory of Suppliers
- 42 Items of Interest
- 44 Understanding Art, by Evarts Erickson
- 50 Letters to the Editor
- 51 Beginning Teacher, by Julia Schwartz
- 52 Art Films, by Thomas Larkin
- 53 New Teaching Aids by Ralph G. Beelke
- 54 Advertisers' Index
- 55 Questions You Ask, by Alice A. D. Baumgarner
- 56 Editorial, Nine Red Stripes

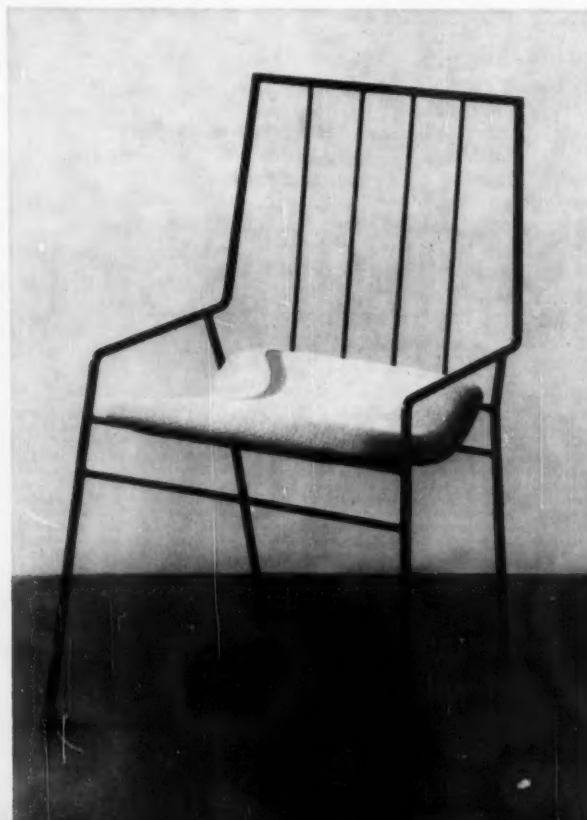
Copyright 1959 by Davis Publications, Inc. All rights reserved. The title School Arts is registered in U. S. Patent Office. Published monthly ten times a year, September through June. Publishing, business, advertising and subscription offices: Printers Building, Worcester 8, Massachusetts. Editorial office, 400 Woodland Drive, Buffalo 23, New York. Second-class postage paid at Worcester, Massachusetts. Subscription rates: United States, \$6.00 a year. Foreign, \$6.65. In Canada, \$6.00 through Wm. Dawson Subscription Service Limited, 587 Mount Pleasant Road, Toronto 12, Ontario, Canada. Copies of back issues when available, 75 cents each—payment with order. School Arts will not knowingly insert advertisements from other than reliable firms, nor will it willingly publish either articles or advertisements which advocate procedures contrary to generally accepted principles of art education. Manuscripts and illustrations dealing with creative art activities are welcome at all times and should be addressed to the Editorial Office. Whenever possible, sharp glossy photographs of original art work should be sent instead of the actual objects, except where the work is small and two-dimensional. Manuscripts should be typed double-spaced and range from 250 to 1000 words. Although every precaution is taken to safeguard material submitted, the publishers cannot be responsible for loss or injury. Remuneration is based on the educational value of the material. A folder with suggestions for writers may be obtained from the Editorial Office in Buffalo.

using this issue

For the eighteenth year, School Arts presents its annual Buyers' Guide and Directory of Suppliers. Many teachers find this feature very valuable in ordering their supplies. You will find it on page 35. In keeping with the emphasis on art materials you will find many articles which show how various materials can be used creatively. The pros and cons of scrap materials are discussed on the Issues of the Day page. Edna Lindemann tells how children can help plan their art rooms, page 5. Have you thought about the place of art in the life of man? Read the article by d'Arcy Hayman on page 9. Ralph Pearson discusses space design in pictures as we near the end of his series, page 31. Julia Schwartz tells us that "Valentines Need Not Be Doilies" on the Beginning Teacher page. The other regular features maintain their usual high standards. Start reading where you will, but you will find much meat on every page.

NEWS DIGEST

This chair was judged one of the twenty best designs of the year 1958 by Great Britain's Council of Industrial Design.



A Chair Makes the News The chair illustrated is one of the "Twenty Designs of the Year—1958," judged for the Council of Industrial Design, London. It was designed by John Neville Stafford and is manufactured by Stafford Furniture, Limited, London. Our special concern is not with the chair itself, but with the idea of competition for excellence in the design of manufactured products. The Council of Industrial Design is doing a great deal to improve the design in products manufactured in Great Britain, through exhibits at their center and elsewhere, through the publication of an excellent magazine, *Design*, and so on. Scandinavian countries formed a conspiracy to create good designs for the world market several decades ago, with the result that some of us who know little about these countries and their people do know that they know how to make beautiful furniture and crafts. Somebody must be slipping the word to the Italian people that they can sell merchandise in America if they stress good design. A great many of our manufacturers and their designers could do well to return to the simple beauty in good basic forms, unadorned and unembellished by the modern rococo that has been inflicted on us recently.

Conference on Art Exchange The Office of Education and the National Art Education Association jointly sponsored a conference on the international exchange of children's art in Washington, January 12–15. Representatives of the various organizations sponsoring programs of this nature were invited to participate, including School Arts. Our own little modest venture, at the request of the United States Information Services in Japan, resulted in exchanges of art work between almost 200 American schools and a like number of Japanese schools. This was done with very little publicity and formality, since we had no intention of actively entering a field which is being served so well by such programs as the Red Cross—National Art Education Association project, Art for World Friendship organization, and so on.

Research Project on Creativity An interdisciplinary study of creativity in the arts and sciences is under way at Pennsylvania State University under a grant to the department of art education from the university. On leave from Cornell University to work on the project is Dr. W. Lambert Brittain, associate professor of child development and family relations, whose doctorate is from Penn State.

Credit Where It Is Due Through an oversight, members of the committee which helped develop the aims for elementary school art reported in the October article by Vincent J. Popolizio were not included. These were Fred Schwartz, Howard Sleight, Fran O'Connor, Frederick Taggart, Morton Raych, Robert Miller, Kenneth Marantz, Carl Reed, all active art teachers who worked with New York state art supervisor.

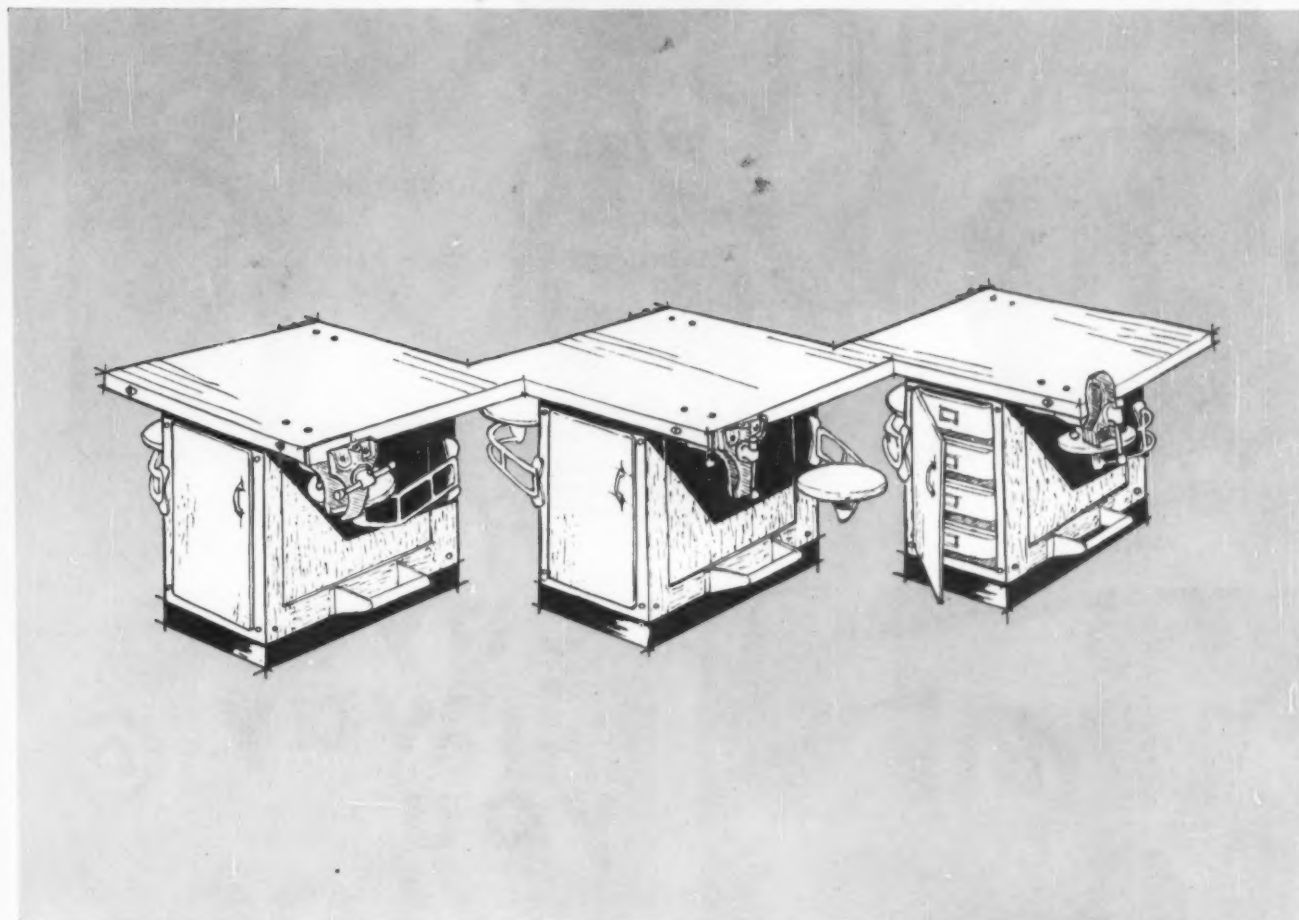
Report Convention Dates Early Before setting conference dates, why not check with Ralph Beelke at the National Art Education office just to make sure there is no conflict?

HAVE AN "EDUCATIONALLY CORRECT"

Art Department

WITH

Sheldon



A-1100 ALL CRAFTS 6-STUDENT WORK CENTER

In efficiency of room layout, in design and variety of facilities, and in the integration of both to encourage free expression — there is no equal to the Sheldon Art Studio-Workshop. Convenience is the key, and a boon it is to instructor as well as students. This 6-student Work Center, for example. It provides individual work area, stool on hinged bracket, foot-rest, and electrical outlet for each of 6 students. The instructor can easily observe from either end while supervising other activity in the room. Sheldon designers have come up with dozens of other new and improved furniture units that are marvels of efficiency in the Art Department. See for yourself — write for your copy of Sheldon's 56-page Art Studio-Workshop Facilities catalog.

E. H.

Sheldon

EQUIPMENT CO.

MUSKEGON • MICHIGAN

WRITE FOR LITERATURE ON "EDUCATIONALLY CORRECT" FACILITIES FOR

SCIENCE • JUNIOR SCIENCE • HOMEMAKING • ART • INDUSTRIAL ARTS • MUSIC



any
way
you
LOOK
at it

TRU-TONE is a BETTER tempera

You will get better results from every poster color project when Tru-Tone Tempera is used exclusively. The most versatile liquid tempera you can buy, Tru-Tone combines color intensity and brilliance with ease of handling. Tru-Tone flows freely, covers with one stroke and dries quickly and evenly into smooth, opaque colors. Available in 24 colors in either bulk or boxed sets. For every grade level, insist on the finest tempera —Tru-Tone.



Tru-Tone Tempera has earned the Certified Products Seal of the Crayon, Water Color and Craft Institute. This is your certification that the products which bear this seal meet the standards set for non-toxic materials.

MILTON BRADLEY COMPANY SPRINGFIELD 2, MASSACHUSETTS

Right, a seventh grade suggestion for school improvement.

Edna Meibohm Lindemann

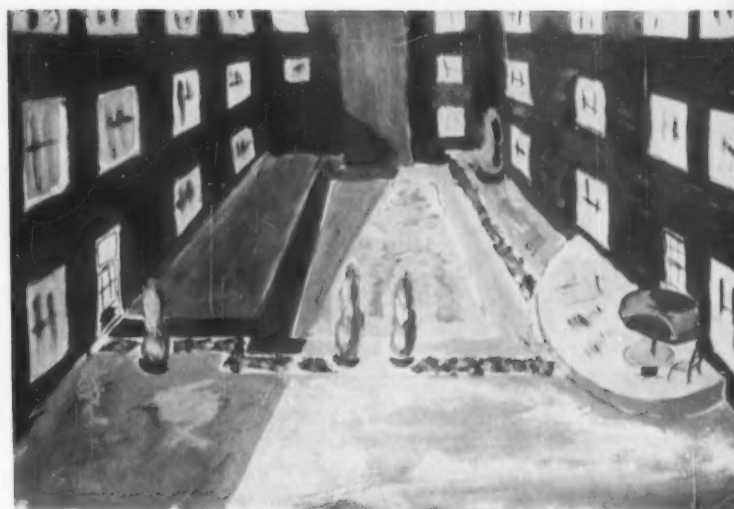
The author discusses and examines the problems and factors which will insure appropriate facilities for art teaching. Curriculum, philosophy, needs, initiative and personalities are all of concern.

ROOMS FOR ART ACTIVITY

The real curriculum is the sum total of what happens to a child while he is in school. It is more than paper plans and recommended course outlines. It is the interaction of personalities, facilities, opportunities, and many other factors which limit or expand the school experience. L. Thomas Hopkins states in *The Emerging Self* (Harper, 1954) that "the curriculum is made during the process of living it by those who participate in it." An art room that is too small and too inadequately equipped to permit a flexible program of intensive individual experiences greatly affects the school curriculum. If educational buildings are not to become obsolete and inadequate for a continually changing curriculum they need to be both spacious and flexible, and planned to accommodate a great variety of activity. That is why students and teachers, who largely shape the actual curriculum, should have a major part in planning rooms and facilities. A good architect is a sensitive designer who works with the human needs, problems, and aspirations connected with the building as well as with cement, heat pipes, and air-conditioning units. Such a man will be vitally concerned with children's hopes and plans for a new building.

In recent years, school officials and architects have made great strides in planning flexible buildings that are adaptable to changing needs and emphases in education. An outstanding example is the Welsh Valley Junior High School, Penn Valley, Narbeth, Pennsylvania. In its issue on Better Schools, *Architectural Forum* (November 1958)

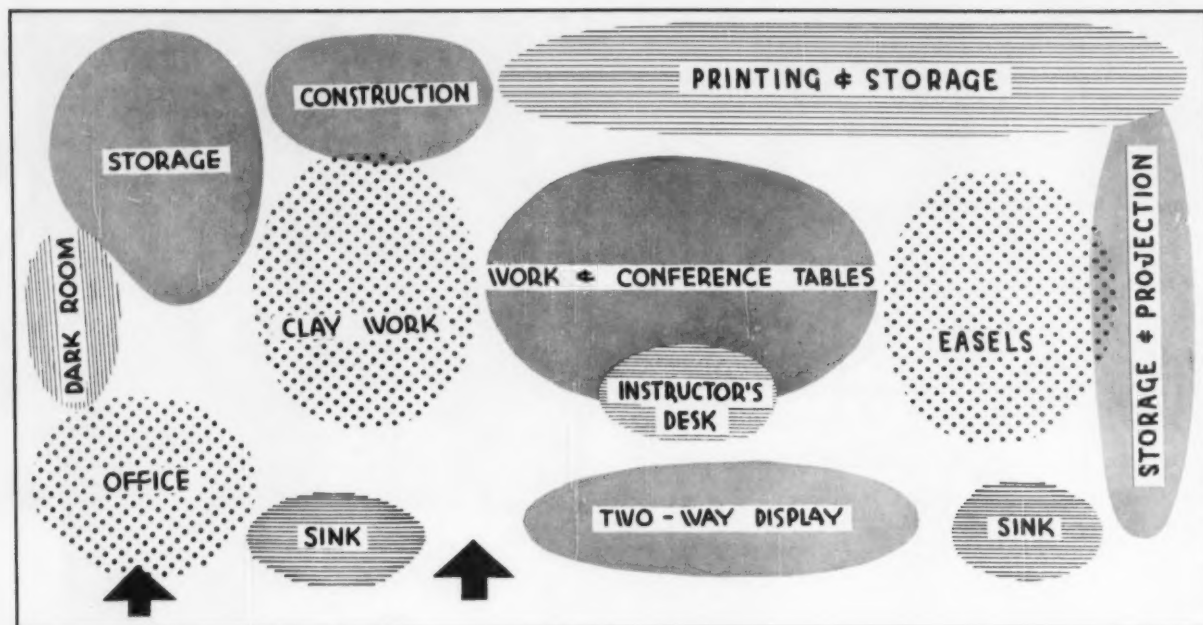
Right, a model dramatizes an idea by a seventh grade pupil.



SCHOOL ARTS "LIFESTYLE" FEBRUARY 1959
ART ROOM PLANNING



BERT SCHUBERT PHOTO



A "balloon" plan for a junior-senior high school art room, showing the organization of space into various working areas.

explains how this school was planned so that it would be adaptable to different types of curriculum organizations. The same issue of this magazine contrasts two schools of similar size and cost. In one school "they skimped on the most important thing a school offers, space for learning," and devoted more of their budget to materials and other features. In the other school (Homestead School, Garden City, Long Island) the architects saved on materials in order to provide generous space, form, and color. Painted concrete-block walls are used without shame, and other economies were effected in order to provide a school with "classrooms large enough and well enough equipped to demand imaginative use."

Because today's art curriculum at various school levels aims to develop individual creative ingenuity and self-reliance, the art program must provide for a wide variety of activities which can occur simultaneously. In the elementary school these activities include work with crayons, paints, clay, wood, paper, and other materials in two and three dimensions. In high school it includes drawing, painting, graphic arts, ceramics, weaving, metalcrafts, sculpture, photography, mechanical drawing, home and community planning. Children may be denied many meaningful art activities by lack of space, equipment and materials. The problem belongs to them because they are involved. In helping students plan space and facilities for art activities, the teacher assists in developing judgments which will have both immediate and lasting values as they learn to control their environment.

Planning a better program is begun by ignoring incon-

veniences and limitations, with the students engaging in the many kinds of activities their creative energies lead them to develop. They should be encouraged to plan more adequate facilities, to do related research, to pool their ideas, to record developments, and to culminate the project with a clear and comprehensive presentation of the total plan. Within the present limitations of space they can rearrange equipment, refinish furniture, partition closets, build cabinets, and the like. Thought-provoking questions may stimulate interest in the problem, as: "How would you reorganize and equip this room so that every member of the class could do at one and the same time the work he or she most enjoys?" Or "If you were to design a new area for art activities, where would you locate it in our school and how would it look?" The teacher may show pertinent articles from architectural magazines or pictures of new and rehabilitated schools in books or in slides, and invite students to look for suggestions for improvement of the art room and other areas of the school. Suggestions may culminate in floor plans, elevation drawings, perspective sketches, models and blueprints, as well as notes on equipment, materials and color. While children's plans are tentative, they can be very useful in achieving goals.

A display of the children's plans can help develop an awareness of problems and possibilities on the part of others involved, including the teaching and administrative staff, school board, parents, and taxpayers. One elementary art teacher demonstrated the inadequacies in the art room by arranging an exhibit of children's work along with a demonstration of the processes involved in producing it. When

visitors noted the cramped conditions she was prepared with a flood of suggestions for removing the partition between an adjoining room, ultimately leading to similar changes in other schools. Since educators generally agree that what happens to a child in the process of creating a work is more important than the work itself, the background for that activity is worthy of note and should be dramatized.

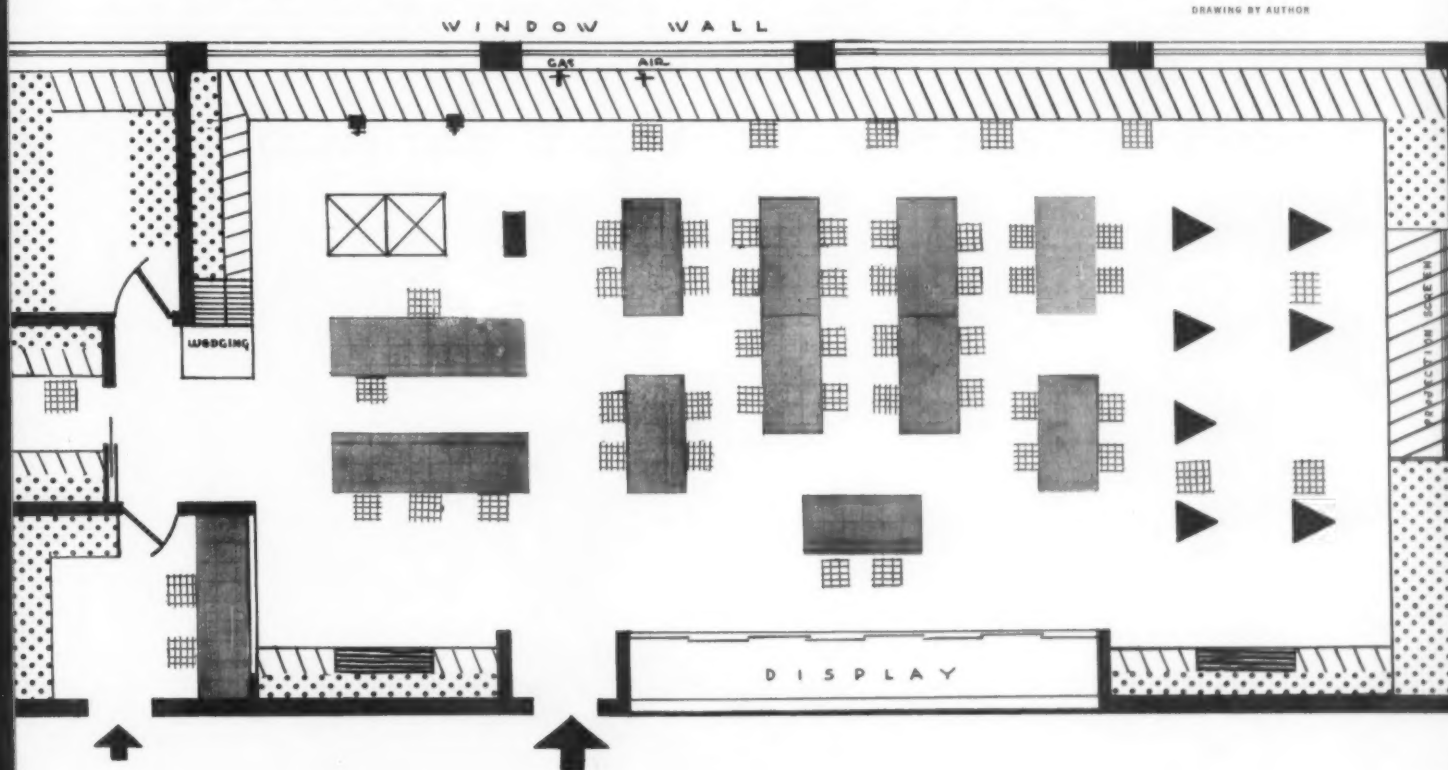
The more thoughtful and careful specifications one can present an architect regarding the precise activities and equipment needed for each specific area of a new school, the more complete and pleasing the final accommodation is likely to be. The following might serve as a check list of basic considerations in planning for art activities, whether the results are to be handed to an architect for integration into a new structure or developed by the school carpenter and students in rehabilitating the present room.

Orientation of the Room Probably the most desirable placement of an art room will still require northern exposure, since the evenness of northern daylight is generally easier for varied visual experience. Various light filtering devices achieve similar conditions. So far as placement in the school community is concerned, it would seem logical that a room or group of rooms whose potential use belongs to the entire

school population should be centrally located. Commodious display facilities should be included nearby.

Space and Equipment This must be answered very specifically according to grade level, number of students per class and in total, types of activities, and a vital philosophy of teaching. No matter how complex, it is important to make a list of all possible activities and all pieces of equipment necessary for them. There will be no space for important equipment or activity unless the room is planned to accommodate it. Undefined space is generally waste space. The chief material one works with is space. Since costs are determined largely by space, it needs to be justified in the plans. One type of easel requires a two-foot square floor space, and an additional working area. Other types need more or less. Since ten to fifteen or more easels may be needed in one junior high school art room, traffic space must also be planned. After listing all the activities, tools and equipment necessary, it might be wise to decide upon a scale and cut symbols for each piece of equipment to that scale. A specific color may be assigned to each kind of equipment, as chairs—orange, work surfaces—green, storage cabinets—brown, and so on. This would translate the equipment into piles of squares and rectangles, all to a scale, ready to be fitted on a similarly-scaled sheet of graph paper.

A floor plan for a junior-senior high school art room developed from a balloon plan. Symbols indicate types of equipment.



Spatial Relationships A "balloon" plan can be the next step. Where would the easels stand? The sinks? The clay area? The printing area and flats? The woodworking area? The demonstration table? The projection screen? Where will student work-in-progress be stored—wet as well as dry? Is there a place where art objects on loan can be kept locked while on view? Are varied facilities for display available such as chalkboards, tackboards, hooks, shelving, and tables? Try making balloons, circles or ovals to represent various areas for placement of equipment and supplies. The balloons must, of course, be sizes relative to the approximate space they will occupy. Storage facilities should be where they are of greatest service, convenient to use. Sinks should be easily accessible for maximum class use. Work areas should be so distributed that clay and water will not soil drawings. Normal student movement around the room should not interfere with creative concentration or the operation of power tools.

Mobility Along with determining functional relationships comes the task of planning traffic arteries. One can conceive of this problem as similar to planning today's thruways. Students should be able to get from one activity area to another without passing through any one of them. Students should be able to get in and out of the room without bumping into things or walking around them. Then, too, there are some tool cabinets, desks, storage areas, and work surfaces which might be best made for easy moving. To keep a room flexible, suitable to the creation of a theater in the round or a series of varied workshop activities, furnishings should be selected or especially designed to insure ease of movement. Only in this way can we manage to carry on a full program.

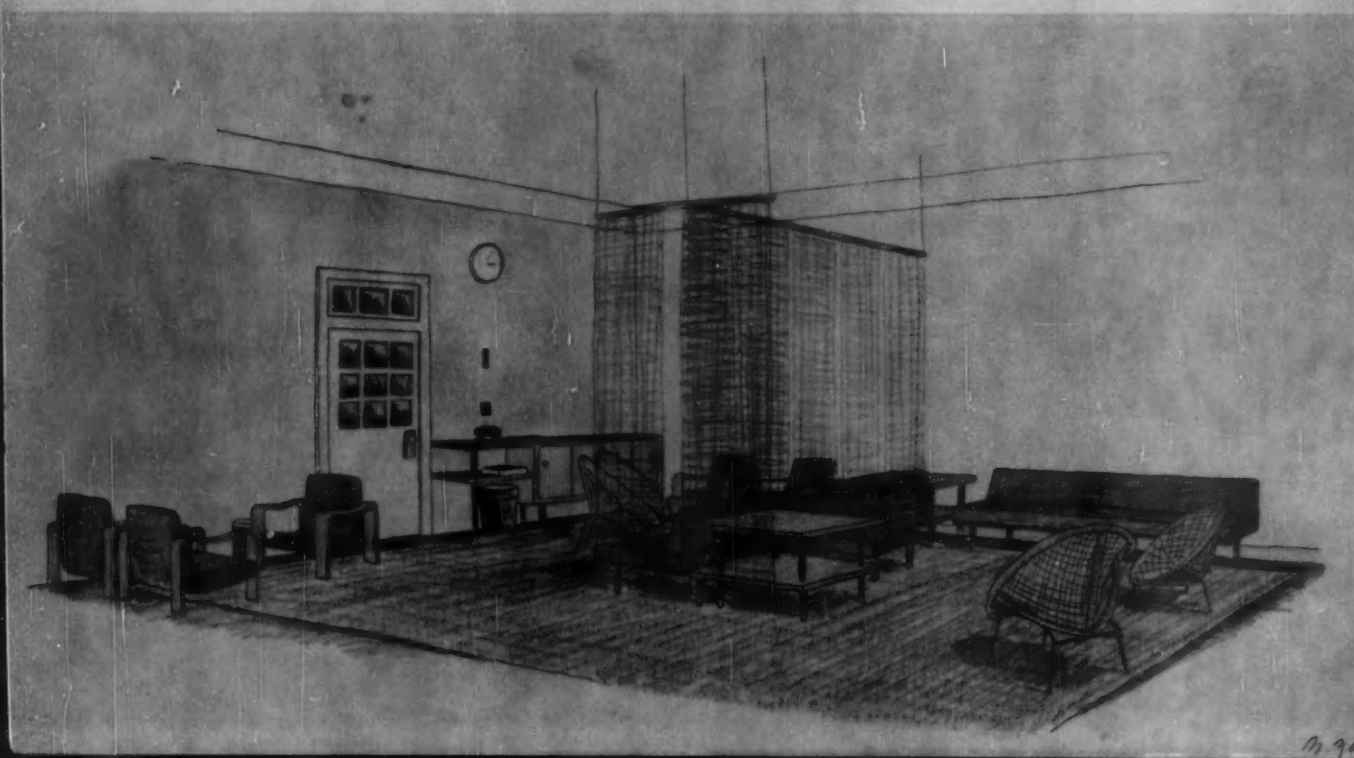
Electrical, Gas, and Water Supply Care must be exercised that all necessary resources are available. Not only good artificial lighting is needed but special lighting for display, detailed drawing, jewelry and related art activities. Again flexibility should be stressed. Electrical outlets on pulleys and floor outlets can be helpful in placement of power equipment as well as for special lighting effects. All sinks should be equipped with clay traps.

The Floor Plan Assemble the pile of squares and rectangles in one and then another and still another way. Explore and exploit possibilities, constantly trying to improve until one highly flexible and defensible plan results.

The ideal art room consists of space for doing all manner of creative art activities; not only drawing, painting, and sculpturing; but also constructing model homes and cities, producing original drama, musicals and puppet shows. Therefore, lightweight but sturdy equipment is needed, such as "erector set" type equipment supplemented by a bank of blocks, cubes, fabrics, cords, and flats for large scale construction and display; chairs and tables that are easily moved and stacked; interchangeable units for storage of supplies, work surfaces, movement of tools and equipment. The ideal room would have abundant electrical outlets for versatile lighting and flexible use of equipment. Where is there a more logical place for students to learn about designing surroundings than in the art activity room?

Edna Meibohm Lindemann is associate professor of art, New York State College for Teachers, Buffalo. Dr. Lindemann has specialized in home, school and community planning.

This sketch by a college student was studied by a committee rehabilitating a women's lounge and influenced decisions made.





AUTHENTICATED NEWS PHOTO

A prehistoric cave painting at Altamira of what is probably a deer. The caves were accidentally discovered as late as 1868.

ART AND MAN

d'Arcy Hayman

The author discusses the role of art as one which serves many functions in life. Art translates life and interprets, Art records and reflects life, Art reforms and improves life, Art enhances and enriches.

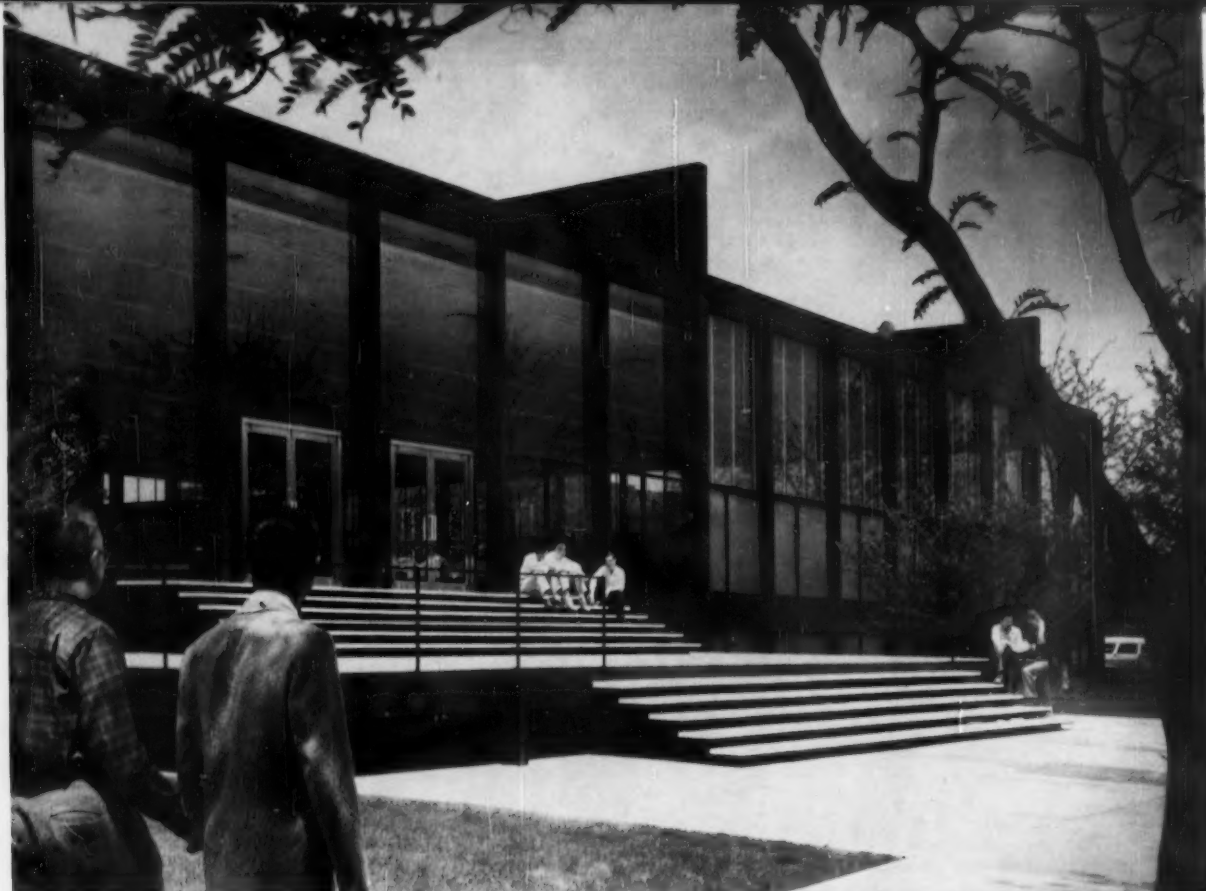
As the genus *Homo sapiens* sits surrounded by the bewildering technological luxury of the mid-twentieth century he views his place along the path of man with a mixture of pride and doubt, a sense of accomplishment and a feeling of confusion. For he who is labeled "civilized man" still wears the double mask of comedy and tragedy, and that which is

called progress has, in its tedious attempt to cradle and enshrine and perpetuate the human spirit, almost reached a point of perfect treachery and total destruction.

Thus, modern man out of crucial necessity, must at least, carefully examine the labels he has so neatly established. He must take a careful look at the endless divisions he has concocted in the name of efficiency and specialization, and re-examine their end products, the separate fragments, the pieces and bits, the isolated category, the remote field.

One of the amputated areas of our contemporary society is that which we have labeled "ART," and subdivided and sublabeled "visual arts," "fine arts," "minor arts," "decorative arts," "utilitarian arts," "architecture," "design," "the crafts," ad infinitum. In our recent history, we have assumed that we must consider art as basically different from the other manifestations of human energy, as opposed to science, for example. We have gone so far as to suppose that separate human activities involve different physical organs. (For example, that scientific activity involves the mind whereas artistic activity involves the sense, the emotions.)

The myth, the fallacy of these suppositions is only beginning to fade in the light of the new-found revelation that all human activity springs from the whole man, in fact, as Jung calls it, "the collective subconscious" of all men. As



AUTHENTICATED NEWS PHOTO

S. R. Crown Hall, on the Illinois Institute of Technology campus, Chicago, was designed by Ludwig Mies van der Rohe.

art and science reach their purest form, the parallel objectives, experiences, procedures and end-products merge into almost a single image, with the scientist crediting his own intuitive senses and the artist discussing energy and matter.

Albert Einstein wrote: "The supreme task of the physicist is to arrive at those universal laws from which the cosmos can be built . . . there is no logical path to these laws. Only intuition, resting on sympathetic understanding of experience, can reach them." Is this not, has this not always been the supreme task of the artist? And has not the artist approached his problems in this same way? Margaret Mead, the anthropologist, has said: "By making art a specially precious part of life, we have demoted it from being all of life."

Artists, art critics, and art educators are often, knowingly or not, guilty of perpetrating the artificial division between art and life. Art is not, primarily, an eccentricity, a snobbery, a therapy, a hobby, an addition to, a game, a subject, a frill, or fun! Surely, it can be any or all of these things, but it is more. Art is human life. It is the very essence of that which is human. Art exists, not as a surface substance, a gloss, an addendum to life but as an integral part of it, a gleaming facet, an embryonic portion. From the moment in our recorded history, that man became distinguishable from the plants and animals, art was that distinguishing mark. Since that time, the realm of art and the realm of man have been one. For further illustration and clarification, let us

examine more closely how art and life are interdependent, by analyzing how art has functioned as a life force throughout the history of man.

ART RECORDS AND REFLECTS LIFE The historian knows that the art of every age and every culture is an outgrowth, an extension of that age and culture. There is no more accurate description of a certain time and place than is given to us by the artifacts we find from the remains of that civilization. Anthropologists and archeologists have estimated that it was just about a million years ago, at the beginning of the Pleistocene period, that man emerged from the world of primates. There have been many attempts to describe and identify the human characteristics of man. The ability to use tools is always included, but we know too that apes are able to utilize simple tools toward a given end. Therefore, we must say that it is not only man's ability to use tools, as extensions of his arms and hands, but to invent and make them artfully and with increasing skill and variety. Thus we see that that which records and reflects the very beginning of the human story is based upon man's inventiveness, creativeness, skill, craftsmanship. The preconceived design and its culmination in the finished form of the earliest tool is, in fact, the basis upon which we study earliest man.

The next way in which man recorded his activity, during the Paleolithic period, was through drawing, painting and

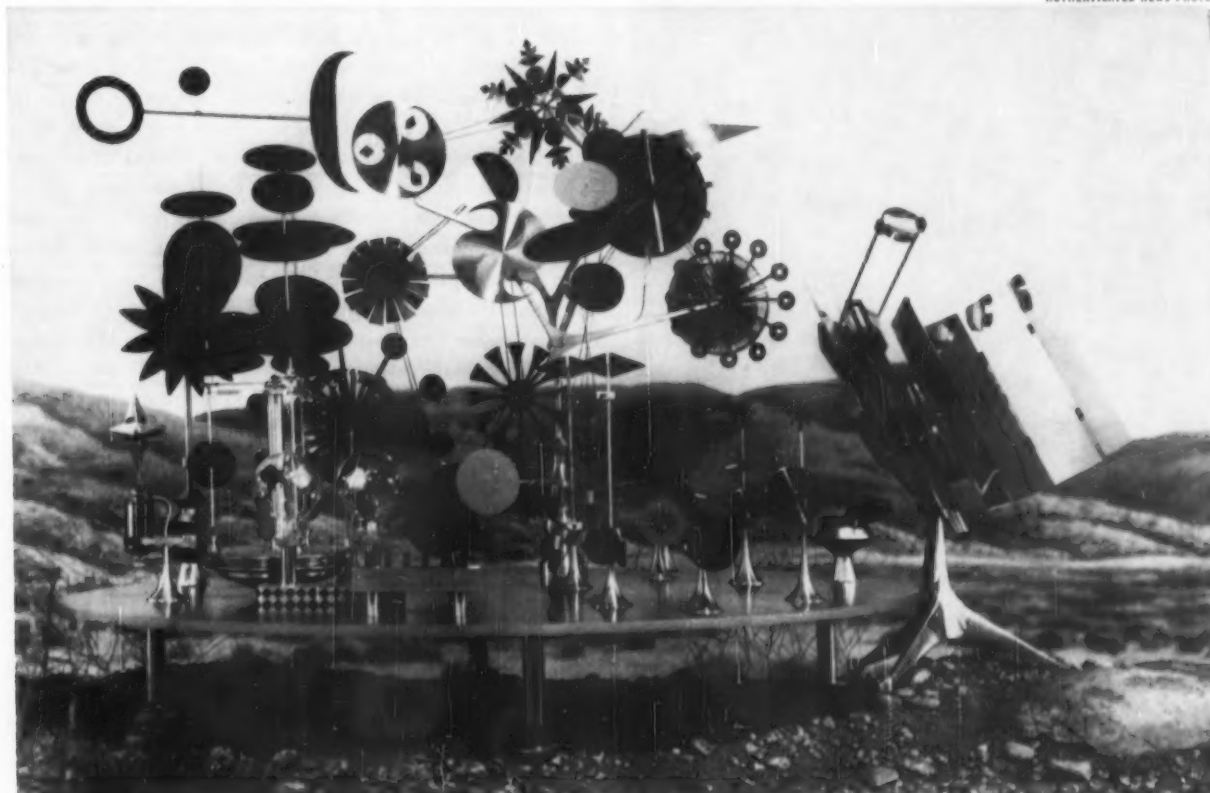
sculpture. And here we find evidence that one of the earliest distinguishing features of the human spirit is its need to record and reflect personal and group experience. The finger-tracings, drawings, engravings, bas-reliefs and paintings on the walls of such caves as the Altamira Cave in Spain, and at Lascaux in central France, tell a clear and direct story about the dawn of human culture. A whole system of communication sprang from these earliest recorded images. The alphabet and all written language are outgrowths of the first drawings and paintings. It has been said that culture exists in and through communication; that the lack of developed communication bars animals from the kind of culture known to humans. Art, then, was of initial importance in the very formation of human culture. When we trace the history of man up to current times we can find recorded and reflected in the art work of each period the life and death, the beliefs and fears, the celebrations and sufferings of human beings. When historians look back upon the art of the twentieth century, they will learn much about our current society. They will learn about our new conquest of and concern for space and speed, our worship of the technological, our strange standards of wealth and power, our continuing conflict of man against man, our desperate need for mass faith, and our longing for love and understanding.

ART INTERPRETS AND TRANSLATES LIFE All of the arts are formed upon a set of basic symbols. Music, language, painting, involve abstractions that live as separate and self-contained entities, but when these symbols are long studied and learned, they act as a magnifying glass, a microscope which is turned back upon ourselves. Art clarifies experience and makes fundamental relationships visible to the half-closed eye. Caught up in the complexity of civilization man often loses sight of his human objective, his *raison d'être*. The artist then not only records the physical facts of his being, but must act as interpreter, translator of the human experience. It is interesting to note that the earliest prehistoric paintings are sometimes to be found in the most inaccessible and uninhabitable portions of caves, which might indicate that the first men painted for other reasons besides those of communication, record making and decoration. This tends to corroborate the theory that these artistic manifestations had ritualistic or magical significance. Art, here, translated man's hopes and beliefs (which later became his superstition and religion) into some plastic form.

Art interprets and translates and symbolizes that area of human experience which we can call expressive activity. Storytelling, playing games, praying, laughing, celebrating, acting, singing, painting, and dancing are the fruits of

Designed by Charles Eames, the colorful toy spins wheels and crankshafts to create a delightful display of sound and motion. It is powered by the sun's rays, converted into electricity as a serious experiment for the Aluminum Company of America.

AUTHENTICATED NEWS PHOTO



man's need for expressive activity. We often classify cultures upon their expressive activity alone. Different societies may have the same tools and the same work habits, but if their art and storytelling are different, the societies are different. What a man dances in certain parts of Africa is the key to the man's whole life. The first inquiry a man of the Bantu tribe puts to a stranger is: "What do you dance?" The relation of artist to society includes, therefore, the expression he gives to the more ultimate values and standards of that society. The Pyramids of Gizeh, the Parthenon, the temple of Vishnu, the Cathedral at Chartres, the chapel at Ronchamp, stand, not only as a record of the time out of which they were built, but as translations of that time. The paintings of Cimabue, Tung Yuan, Blake, Klee, Mondrian, and de Kooning are highly personal yet universal interpretations of human experience. H. F. Amiel wrote in his journal (dated November 25, 1861): "Art reveals nature

by interpreting its intentions and formulating its desires. The great artist is the simplifier."

ART REFORMS AND IMPROVES LIFE The artist consciously or unconsciously seeks to change and improve upon the human condition. When all things as they are please a man, the stimulus toward creative activity is absent. Whatever the designer's area, the painter's subject, he, as a member of the human race, is concerned with the betterment of mankind. Emerson said: "Men can paint or make or think nothing but man." Leonardo da Vinci, that philosopher-scientist-artist of the Renaissance, multiplied his involvement in human development through the use of several media of expression. The architects of our time, Le Corbusier, Mies van der Rohe, Frank Lloyd Wright, Richard Neutra and others, are profoundly concerned with human progress. They devote their energies to the study and meeting of human need and problem. Neutra has said: "The planner of land and landscape, the architect, must be a doubly sensitive and creative man because he settles human beings side by side with each other and with outer nature . . . a neighborhood, a community, can yield mental states related to basic physiological cravings or urges."

Gyorgy Kepes, painter-designer-educator, now working on a major study of the perceptual form of our urban environment, wrote: "In a human sense, completion is realized through human purposes, and these come from the recognition of our total horizon, from absorption of the world given us through our senses and our minds . . . to recognize the unique purpose of our unique age we have to acknowledge that we became what we are through our social existence, through our common struggle to master nature's Forces . . . Our great task is to bring man into scale again with the entire horizon of nature. . . ." Other men concerned with Form and Structure like Buckminster Fuller, Eero Saarinen, Charles Eames and Henry Dreyfus, are ever striving to better meet man's physical, emotional and aesthetic needs. The painter has long been actively engaged in social and spiritual reform. Goya and Daumier, Rouault and Orozco who etch upon our eyes and mind the appalling state of civilized man's moral decline, Picasso whose great work, "Guernica," screams in horror at war and human destruction, Kirchner and Munch, Francis Bacon and Rico Le Brun who point to the problems of a decadent society and reveal in fear and compassion the true thing, all contribute along with the philosophers and statesmen and scientists, to social reform within the human society. Perhaps the most elusive quality of man is that which we call the spiritual. We cannot locate its source in the physical make-up of men, but know that the human spirit is one of the things that defines the human being.

In a painting by WuChen (1200 A.D.) called "Bamboo in the Wind" we see two bending branches in a field of space. To an uninformed viewer, foreign to the great culture of the Orient, this would be merely a pleasant, decorative panel suitable as a background motif in the dining room. To the artist, and to his own people, this painting symbolizes a

"Man Behind the Mask," mask of a Katsina dancer from the Hopi Indians of the American Southwest. The mask is made of painted leather, black horsehair; mouth of fiber.

PICKOW FOR THREE LIONS





EXTENDED LOAN BY THE ARTIST TO THE MUSEUM OF MODERN ART, NEW YORK

Pablo Picasso in his world-famous painting "Guernica," vividly portrays the horror of war and the destruction of humans.

whole philosophy of life; it is the key to man's vision and man's spirit. Just as the Haiku poet of Japan endeavors to express a cosmic truth in seventeen syllables, thus the painter with poetic economy strives to capture the universe in a rain-drop.

*"One fallen flower returning to the branch?
"Oh no! A white butterfly." Moritake*

*"Since there is no rice
"Let us arrange these flowers for a lovely bowl." Basho*

*"Reciting scriptures
"I find a strange wondrous blue in morning glories."
Kyoroku*

*"Ah! I intended never to grow old . . .
"Alas, the New Year's bell!" Jokum*

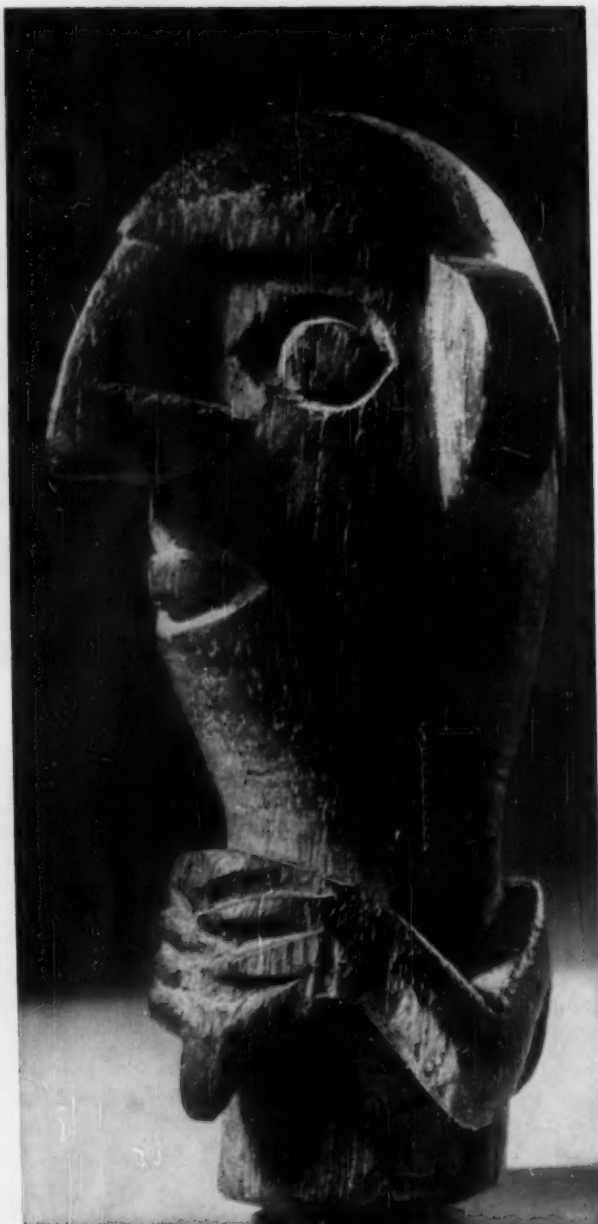
Kandinsky, one of the fathers of our contemporary abstract movements in painting, wrote in his book, "Concerning the Spiritual in Art," that he wanted to "touch under the skin of nature, her essence and her content." Like the ancient Chinese artist and the Haiku poet, today's painter attempts to escape the superficial, to penetrate the façade, and to enter into the realm of the spirit of man.

ART ENHANCES AND ENRICHES LIFE Whether we focus our attention upon a tribesman in the most remote

regions of the earth or upon the most sophisticated urbanite in the stone and steel jungle of Manhattan we will find that art touches every phase of human life and makes it that much more comfortable and rich and beautiful. The art products that serve our physical needs, such as the well designed chair, the utensils with which we eat, the clothes we wear, the automobile we ride in, the building we live and work in, can and should function as utilitarian as well as art objects. The art products that meet our intellectual-emotional-spiritual needs, such as paintings, sculpture, the ceremonial vase, the tapestry, the book illustration, the stage set, serve other human requirement. But all of art serves man's esthetic needs, and esthetic needs are common to all men.

"The senses delight in things duly proportioned as in something akin to them; for the sense, too, is a kind of reason as is cognitive power." Thomas Aquinas

The "home art" of Magdalenian man in prehistoric times included delicate engravings on utensils and tools. Prehistoric men of Central and North America dyed and decorated the animal skins they wore, painted intricate symbols on their shields and canoes. Wood carving, basketry, pottery, leather work, and jewelry making are among the first accomplishments of man. They might even be considered the forerunners of science and mathematics. In architecture and the crafts there was a need for arithmetic and



AUTHENTICATED NEWS PHOTO

From that moment in our recorded history, that man became distinguishable from the plants and animals, art was that distinguishable mark. Different societies may have the same tools and the same work habits, but if their art and story-telling are different, the societies are different. The primitive sculpture illustrated above is from the southwest Pacific area. For the student of primitive cultures the figure is characterized by the forms which are identifiable with this particular region. Many times the primitive arts are broadly grouped together with little effort on the part of the observer to distinguish characteristics which make the carvings unique to a particular people, time and place.

geometry. There was an immediate requirement for a system of measurement. Then it was that the first calendar and system of weights and measurements were invented.

When we look at the magnificent use of color and form and the inventive use of symbol in an ancient Peruvian textile or in a Zuni jar, and we compare it with, say, the pictographs and petroglyphs of the Wyoming Indians of some nineteen centuries past, it is difficult, if not impossible, to distinguish between "fine" and "decorative" art. Perhaps one object is part of a costume, another designed to carry water or wine, and the others, segments of painted or etched cave walls, but they all give evidence of man's need to act upon, control, change, and enhance his environment. And they equally attest to the human esthetic need and imagination. The Gardens and Fountains of the Villa d'Este, a Lehmbruck, a Marini sculpture, a Calder mobile, a Finn Juhl chair, an Eva Brummer rug, a Matisse painting . . . these are the things that make the open and closed moments of mankind indeed miraculous and beautiful.

We have examined only some of the endless ways in which art manifests life. There are as many more ways as there are individual men to see them. One man, a physicist named Robert Oppenheimer, writing in "The Bulletin of the Atomic Scientists," sees it this way:

The artist depends upon a common sensibility and culture, on a common meaning of symbols, on a community of experience and common ways of describing and interpreting it. He need not write for everyone or paint or play for everyone. But his audience must be man . . . Often the artist (today) has an aching sense of great loneliness, for the community to which he addresses himself is not there . . . To the artist's great loneliness there is a complementary and great and terrible barrenness in the lives of men. They are deprived of the illumination, the light and tenderness and insight of an intelligible interpretation, in contemporary terms, of the sorrows and wonders and gaieties and follies of man's life. The problem of the scientist is in this respect not different from that of the artist, nor of the historian. He needs to be a part of the community, and the community can only with loss and peril be without him. . . . Both the man of science and the man of art live always at the edge of mystery, surrounded by it, both always as the measure of their creation, have had to do with the harmonization of what is new and what is familiar with the balance between novelty and synthesis, with the struggle to make partial order in total chaos.

Ruth Benedict, "Patterns of Culture," Houghton Mifflin Company, Boston, 1934. Franz Boas, "The Mind of Primitive Man," The Macmillan Company, New York, 1938. Albert Einstein, "Essays in Science," Philosophical Library, New York, 1934. John J. Honigmann, "Culture and Personality," Harper and Brothers, New York, 1954. "Japanese Haiku," Peter Pauper Press, New York, 1955. Gyorgy Kepes, "The New Landscape," Paul Theobald and Company, Chicago, 1956. Ralph Linton, "The Tree of Culture," Alfred A. Knopf, New York, 1955. J. Robert Oppenheimer, "Prospects in the Arts and Sciences," Bulletin of Atomic Sciences, February 1955. Harry Lionel Shapiro, "Man, Culture and Society," Oxford University Press, New York, 1956.

d'Arcy Hayman is a painter, designer, author and educator. Readers may recall the cover Miss Hayman designed for School Arts on our November 1958 issue. She is presently on the faculty at Teachers College, Columbia University. Formerly she taught at University of California, Los Angeles, and New York University as teaching fellowship recipient.

Raymond B. Arnold

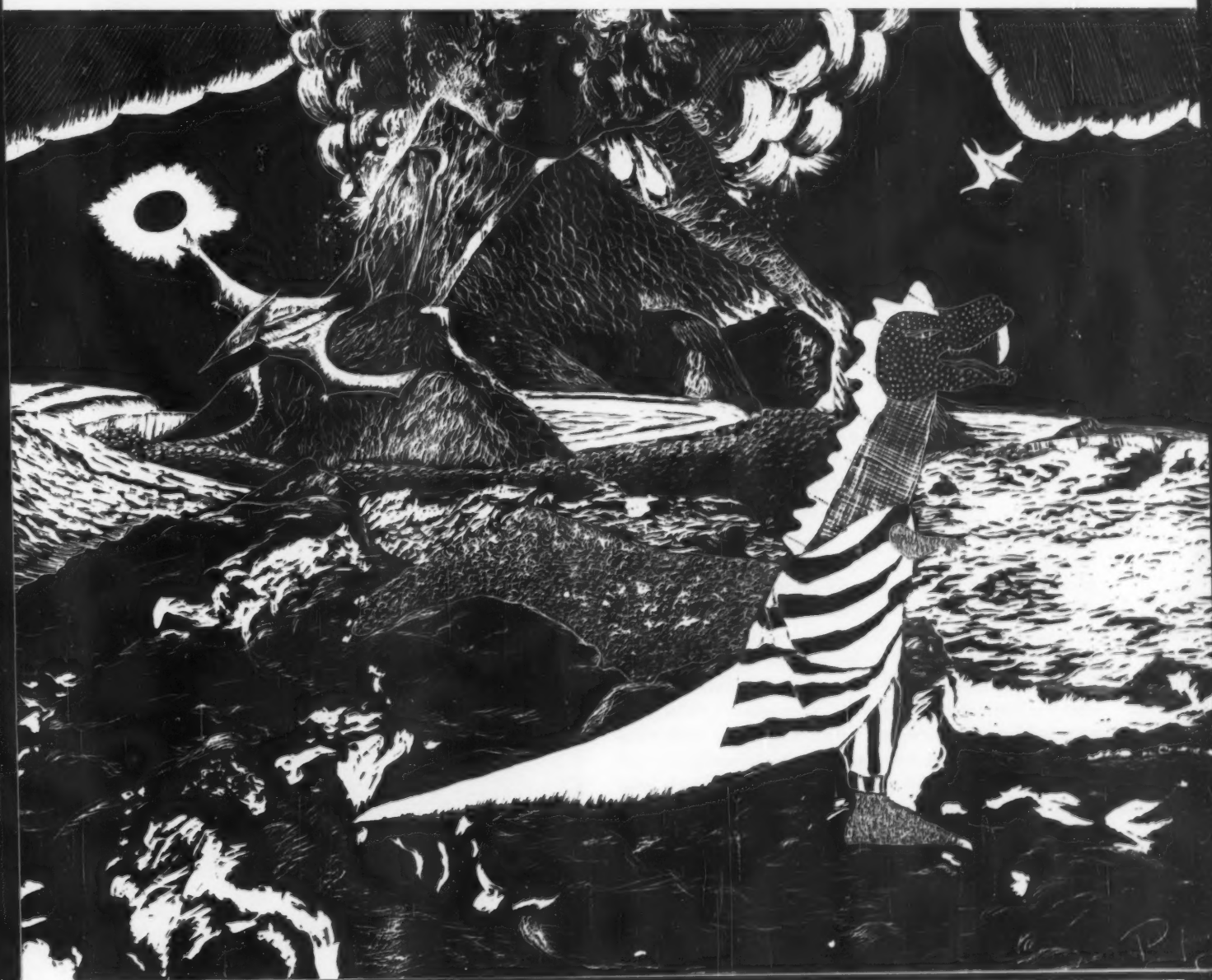
A greater sensitivity to textures seems to develop when students begin with a photo-collage. The theme is then carried over to the scratchboard. Students are encouraged to concentrate on texture and design.

Photo-collage inspires scratchboard

In the art classroom I am constantly searching for new ways to inspire youngsters to take the time necessary for planning or organizing a new problem. Too many students want to get to the finished product without creative thought and plan-

ning. The course of study that I use for my high school advanced art class includes both a collage problem and a scratchboard problem. Previously the collage had been given several problems before the scratchboard. Four years

Scratchboard drawing by Philip Young, a student of the author at East Bakersfield High School, Bakersfield, California.



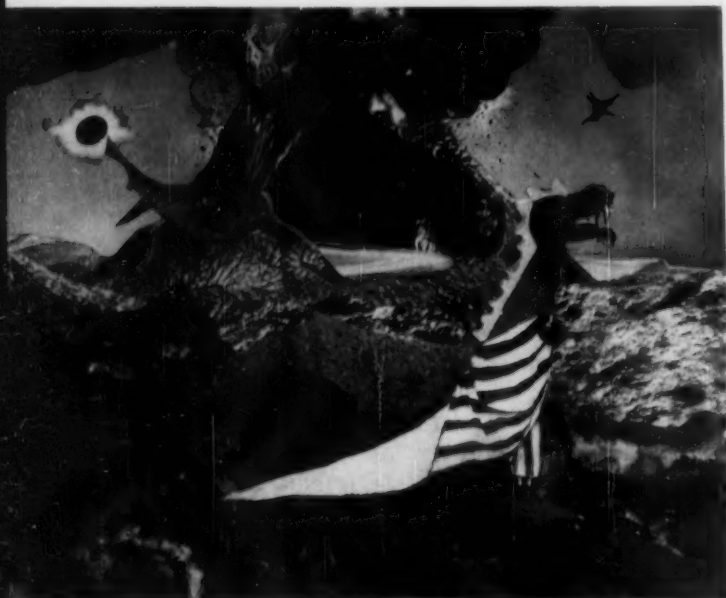


PHOTO BY SCHWEIKHARD STUDIO

Philip's preliminary photo-collage study for scratchboard was made from textured scraps clipped from colored photos.

ago when my advanced class was part way through the two collage designs they are required to do, I thought, "Why not let these designs serve as the preliminaries for the scratchboard?" We tried this out, with very fine results, and we have been doing the problems together ever since.

Students design the collages in full color from textured scraps that they clip from two or three of the popular weekly magazines. The theme of the collage is left to the individual and usually runs from the nonobjective to the realistic, with more of the latter. If people, buildings, trees, and other familiar objects are in the composition it is well to insist that these elements be created rather than clipped "as is" and assembled. If this point isn't stressed, teachers will get an assemblage of bathing beauties and sleek automobiles.

The student is encouraged to concentrate on textural variation, good design and composition when composing this collage. After a satisfactory collage has been developed the student carries the theme over into his scratchboard drawing. The results are very effective and students seem to develop greater textural sensitivity through this method.

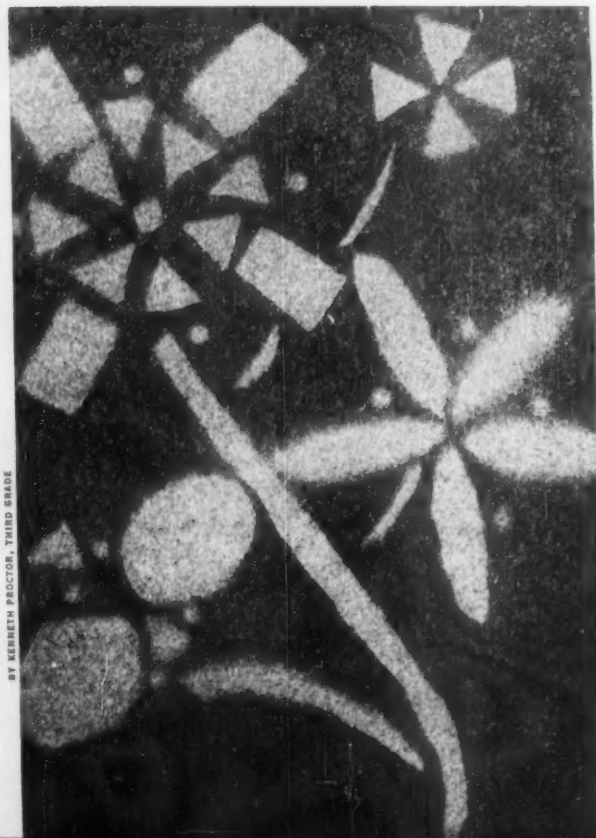
Raymond B. Arnold now teaches at Elmira Free Academy, Elmira, N.Y. Formerly he was at East Bakersfield High School.

WE LET THE SUN PRINT IT

Joanne Cope

The teachers in my school have complained for so long about how fast colored paper fades. This year we decided to capitalize on this fact and we tried "sun printing." First, a stencil is cut in a piece of paper. This can be done by folding the paper once or twice, and cutting designs on the folded edges, or a design of a nonsymmetrical nature can be drawn on the paper and the parts cut out separately. When the stencil is cut, it is paper-clipped to a dark sheet of paper and placed on the window sill in the bright sun. In a few days the stencil can be removed, and this is something the children really look forward to doing. The same stencil can be used over again. "Sun printing" can be done with leaves and plants for nature study, and with other objects such as string, buttons, keys, etc. These things can be placed on the dark paper and held down with pins.

Joanne Cope is art supervisor in Lunenburg, Massachusetts.



BY KENNETH PROCTOR, THIRD GRADE



PHOTOS BY SCHWEIKHARD STUDIO

Aluminum and copper foils are successfully combined in this panel. Color was carefully added to enhance various areas.

DESIGNING IN METAL FOIL

Nancy Belfer

Repoussé becomes a revitalized craft when students are encouraged to explore the qualities inherent in the foil used in the process. Mere decorativeness is replaced by sensitive use of space and texture.

Tooling in metal foil, especially copper, has long been a favorite activity of school craft programs. Because it is a relatively simple process and the results are sometimes deceptively impressive, its popularity has been gradually increasing. Recently it has fallen prey to the "do-it-yourself" kits. In these you receive, in addition to copper and a few simple tools, a tracing of your own choosing that can easily be transferred to the metal. So while the metal itself

is becoming more widely used its inherent art quality has in many cases been lost.

It is this familiarity with the medium that is perhaps most difficult to break down when introducing metal foil to a high school art group. They have seen a great deal of it, and have come to accept the mediocre as not only good design, but the only suitable kind of design for metal foil. The swans floating among the water lilies, jungle panthers



Peggy Chapin, a West High School student, designed her copper repoussé panel with concern for good spatial organization.

and svelte oriental figures are most prevalent in the concept of what is "right" for metal foil. The students are overly concerned with the results, caring little for the process. If they can come to realize that metal foil tooling can have

Oxidized copper foil was used to create Katherine's repoussé.



real meaning as a serious art medium rather than a mere decorative accessory, they will approach the problem with more thought.

Actually, working with metal foil can provide an excellent means of experimentation with textures, in addition to the basic problem of space organization. The tools can be almost anything that will not cut through the metal. Orange sticks, sharpened pieces of this doweling, and the tips of penholders make handy devices for initial planning. A great variety of textures can be obtained by odds and ends that the students find. Purses and pockets are excellent sources.

The real problem is one of design. When working out an idea for metal tooling many students tend to overlook its adaptability to the medium. Metal foil, like any other material, has limitations as to what can and cannot be done with it. The design, which eventually will be a part of the material, is so closely related to the material that it cannot be considered as a separate entity. The inexperienced student must proceed slowly, almost letting the design develop by itself as he becomes familiar with the reactions of the metal to the various tools he tries.

Combining aluminum foil with copper in the same composition can provide an interesting challenge for more advanced students. Pieces of metal can be attached, collage fashion, with clear cement. Color also may be added—oil paint or lacquer will adhere to the metal. A thin coat of clear lacquer may be used as a protector. If the high school art student approaches the problem of metal tooling freely and with a spirit of experimentation, it will be a refreshing and valuable art experience.

Nancy Belfer teaches art at West High School, Rochester, New York. She has previously contributed to *School Arts*. The work produced by her students demonstrates a strong foundation in design. This is evident in the illustrations.

Elementary screen printing

Children at the elementary level may enjoy screen printing as a part of their experience in graphics with a minimum of equipment. The author describes a simplified procedure for introducing silk screen.

Edith Brockway



Organdy is secured to frame with four strips of masking tape.



The art of silk screen printing can be adapted to any age and skill, according to the methods and materials used. A square of organdy, a box lid, masking tape, and a thick all-purpose paint are the main ingredients a second or third grader needs for making attractive prints. In making a silk screen print in the elementary grades, materials are collected, then the idea for a design is created. Flowers, birds, animals, trees, houses, and people are simply drawn in outline form on a sheet of paper which will fit the space cut in the box lid. Hosiery or stationery boxes are good for this work. A square or oblong area is cut out of the center of the lid, leaving an inch to a two-inch border around the edge. A square of organdy or other finely woven stiff material is cut to fit the size of the lid and secured to the inside of the lid with four strips of masking tape. The tape should be evenly and securely laid as it forms the frame of the print.

The drawing is now placed beneath the screen and transferred with wax crayon in heavy solid lines onto the screen. If parts of the drawing are solid, this area should be thoroughly filled in with the crayon so that when the paint is applied it will not come through in the wrong places. The original sketch is removed and replaced with a sheet of white paper, being careful that it is centered evenly with the screen. A heavy all-purpose paint of a tacky consistency is

Outline drawing is made on paper to fit cutout frame area, and filled in with crayon. Cardboard serves as a squeegee.



PHOTOS BY THE AUTHOR

applied with a square of heavy cardboard. Two or more colors can be used as the printer becomes familiar with his mediums. The edge of the cardboard draws the paint across the screen, pressing it evenly through the cloth. After the surface is covered, the excess paint is scraped from the area. The screen is now lifted from the drawing paper and the print is completed. If other prints are desired more color can be

applied and the process repeated indefinitely as needed.

Edith Brockway, writer, makes her home in Decatur, Illinois. The method described here is technically not silk screen, although the principles are the same, because silk is not used. By a coincidence, Dr. Alice Baumgarner gives advice on simple screen printing in "Questions You Ask," page 55.

The screen is pulled gently away from the paper, revealing the completed print. Student's expression speaks for itself.





PHOTOS BY PAUL LEMMONS

A tremendous sense of joy and accomplishment was evidenced the day the completed draperies were hung in the health room.

ART AS A SCHOOLWIDE ACTIVITY

E. Frances Crimm

An entire school population cooperatively designs, executes wall hangings and block printed draperies for the beautification of their school. All were made to feel a part of this creative enterprise.

It can be done! An art activity can serve as a common goal for a whole school. With the cooperation of the superintendent, principal, teachers, children and art consultant a schoolwide art project of wall hangings and drapes was completed recently at Graham School, Shelby, North Carolina. The idea for these decorations was conceived while the principal and art consultant were touring the newly completed school building a year ago. The rough textured

concrete walls, it was decided, would make a perfect background for burlap hangings done in stitchery and felt. It was noted that draw drapes were needed in the health room to close out some of the sunlight occasionally.

These ideas were presented to the faculty, and ways of organizing the work were discussed. The new Graham School was designed with two wings joined by a spacious library and offices. This construction gave opportunity for



"Animals of the Forest" was the theme selected by children for this attractive wall hanging made of felt and burlap.

Primary and Elementary children each to work on a hanging for their side of the building. As the health room was used by all, the drapes became a joint project. The principal appointed teacher committees which were to see that the work continued once under way. Due to the fact that classroom teachers are somewhat confined during school hours, the art consultant took over the planning with the children. Three separate student committees met to discuss and plan the work. There was no dearth of ideas and opinions. The art consultant served only to keep the discussion on the matter at hand and to summarize the decisions. The committee members reported in full all proceedings to their classes. No steps were taken without the full knowledge and approval of those children involved. Enthusiasm ran high and remained active in spite of the fact that work on the three projects extended over eight months.

The first project to be completed was the primary wall hanging. The children decided on "Animals of the Forest" as a theme. Each child was given opportunity to design and cut in felt an animal for possible use on the burlap. Beads, sequins and buttons were sewed on for added interest. As the animals were completed, they were arranged and rearranged on a gold burlap backing. When the primary children gave approval of the layout, the animals were glued down with felt glue. Leftover animals were used on small hangings in the classrooms.

While work was being completed on the first hanging, designs for linoleum blocks were under way in two second grade sections. Ideas were drawn on paper that had been cut to correct size. Subjects ranged wide and included a dancing fairy, singing children, flowers, butterflies, an automobile, and a clown. Twelve ideas were chosen to be transferred to the linoleum blocks. Cutting of the blocks was done by a fifth grade section and sample prints in one and two colors were made. The samples were shown to several classes who decided on a pink and blue combination. Mixing of the textile paint to harmonize with the health room furnishings was an exacting operation. When this was completed, a place on the floor of the library workroom was prepared for the drapes. Aqua textile was used because of the ease with which it can be washed from work surfaces.

The linoleum blocks were patted with sponges which had been loaded with textile paint. The placement of the blocks was marked in pencil on the drapes. Next the inked blocks were arranged in order on the material. To assure enough pressure the children stood on the blocks in sox feet. Pink was printed first. Then blue was superimposed using the same blocks off set approximately one-fourth inch. The design ran around the outside edges and across the bottom of the draw curtains. The last step was to set the textile color by steam pressing.

In the meantime, the fourth, fifth, and sixth grades had chosen "Fish of the Seas" as the theme for their wall hanging. These classes were busy doing research on fish and designing many varieties of shapes for patterns. A committee of children pinned these shapes to a natural burlap background. A chart of Lily threads served as a guide in deciding on the colored yarn to be used. The children discovered that the crayon gradations could not be matched exactly in yarn and that the fish would have to be much simplified and conventionalized. A very coarse yarn was chosen so that the areas could be covered quickly. As the yarn was too large to sew through the burlap, it was, therefore, attached on the surface by means of a cord sewn over it. Very large needles with big eyes proved best for this work. For finishing touches, beads, buttons, and sequins were sewn on the fish with a small thread and needle.

With a sigh of great satisfaction, the three projects were hung in place and displayed proudly to parents and visitors. During the process, parents and the maintenance crew were helpful. Many sewing and bead boxes were raided at home. The hangings and drapes were hemmed by a school patron. For the top and bottom of the wall hangings, the maintenance supervisor provided metal pipes and drove nails into the concrete block wall. A local establishment steam pressed the drapes and a patron pleated, hemmed and hung them. These three art projects served as a common undertaking for the school and in the process involved patrons in the community as well.

E. Frances Crimm is art consultant for the public schools of Shelby, North Carolina. The program was at Graham School.

Modeling in wire

Gerald F. Brommer

Wire sculpture may help the student in many ways to find new means for communicating ideas, developing greater dexterity, and bridging the transition from two- to three-dimensional creative art experiences.

PHOTOS BY DAVID MITTENZWEI



The rather sophisticated horseman illustrated above was made by combining different types of wire. Students were made aware of the wire's flexibility as they were encouraged to twist and bend material until they achieved a sculpture.

Wire is an expressive medium, working well as a transition problem between two- and three-dimensional creative art forms. Since wire is really line, it has already been twisted, pulled, crumbled, bent, stretched and drawn in countless two-

dimensional activities, and may already be classed as an old friend. But wire is really a three-dimensional line, therefore having added interest and motivation for creative work at all grade levels.

To each art teacher, wire solves a different problem. You may have trouble getting the student to work quickly and deftly. You may have a simple problem in manual dexterity, or your students might be confronted with the basic problem of communicating ideas. Many students have trouble just simply seeing or imagining in the third dimension. Wire is certainly not a cure-all, but for many of the problems it does offer help, and because of its variety of creative aspects, lends itself well to many solutions. At lower grade levels, communication and rapidity should be considered essential. With a creative atmosphere in the classroom, ideas will be exchanged and many wonderful things will happen. With several feet of soft wire, many shapes might be formed in one period. The shapes will probably be more two-dimensional at first, but by experimental twisting and bending into grotesque poses, the idea of three-dimensionality will soon be founded. Merely trying to make the "things" stand up will produce the essence of the third dimension.

In all probability, the higher the grade level, the more time will be taken by the student—there are more ways to try and more searching to be done before the product is satisfying. Yet there is great value in the "quick sketch" method employed by figure drawing people—using two feet of soft wire and a few minutes. Have the students move around and exchange ideas, offer suggestions, search, and look. At the high school level, deeper insights into art concepts are offered—greater control of the sinuous line, use of some basic tools, the purely creative act of shaping wire from a coil to a pleasing shape. Wire sculpture offers a fine opportunity to do research in the basic shapes and movements of animals and people. Sketches, continuous line drawings, study of basic muscle structure, and real looking and seeing will prove extremely valuable when time comes to begin twisting that wire.

The problem of teaching simplification of form and shape can be approached with the wire forming technique. The photographs will show that the simple form "reads" just as well if not better than a more complicated sculpture of the same subject. There is an abundance of contemporary wire and metal sculpture that may be reviewed and studied in conjunction with this activity.

Wire may be found in a variety of places, and the purpose of this article is not to attempt a list of sources. The resourceful teacher will find more than enough with little effort. Since no specific gage wire is "the best," surplus stores, phone company scrap piles, hardware stores, and the students' own garages may be visited. Some wire may be purchased and some may be found. Many types should be brought in. Some may certainly be discarded but the greater the variety, the greater the creative urge to experiment, and the greater and more interesting will be the fin-



"Animals of the Forest" was the theme selected by children for this attractive wall hanging made of felt and burlap.

Primary and Elementary children each to work on a hanging for their side of the building. As the health room was used by all, the drapes became a joint project. The principal appointed teacher committees which were to see that the work continued once under way. Due to the fact that classroom teachers are somewhat confined during school hours, the art consultant took over the planning with the children. Three separate student committees met to discuss and plan the work. There was no dearth of ideas and opinions. The art consultant served only to keep the discussion on the matter at hand and to summarize the decisions. The committee members reported in full all proceedings to their classes. No steps were taken without the full knowledge and approval of those children involved. Enthusiasm ran high and remained active in spite of the fact that work on the three projects extended over eight months.

The first project to be completed was the primary wall hanging. The children decided on "Animals of the Forest" as a theme. Each child was given opportunity to design and cut in felt an animal for possible use on the burlap. Beads, sequins and buttons were sewed on for added interest. As the animals were completed, they were arranged and rearranged on a gold burlap backing. When the primary children gave approval of the layout, the animals were glued down with felt glue. Leftover animals were used on small hangings in the classrooms.

While work was being completed on the first hanging, designs for linoleum blocks were under way in two second grade sections. Ideas were drawn on paper that had been cut to correct size. Subjects ranged wide and included a dancing fairy, singing children, flowers, butterflies, an automobile, and a clown. Twelve ideas were chosen to be transferred to the linoleum blocks. Cutting of the blocks was done by a fifth grade section and sample prints in one and two colors were made. The samples were shown to several classes who decided on a pink and blue combination. Mixing of the textile paint to harmonize with the health room furnishings was an exacting operation. When this was completed, a place on the floor of the library workroom was prepared for the drapes. Aqua textile was used because of the ease with which it can be washed from work surfaces.

The linoleum blocks were patted with sponges which had been loaded with textile paint. The placement of the blocks was marked in pencil on the drapes. Next the inked blocks were arranged in order on the material. To assure enough pressure the children stood on the blocks in sock feet. Pink was printed first. Then blue was superimposed using the same blocks off set approximately one-fourth inch. The design ran around the outside edges and across the bottom of the draw curtains. The last step was to set the textile color by steam pressing.

In the meantime, the fourth, fifth, and sixth grades had chosen "Fish of the Seas" as the theme for their wall hanging. These classes were busy doing research on fish and designing many varieties of shapes for patterns. A committee of children pinned these shapes to a natural burlap background. A chart of Lily threads served as a guide in deciding on the colored yarn to be used. The children discovered that the crayon gradations could not be matched exactly in yarn and that the fish would have to be much simplified and conventionalized. A very coarse yarn was chosen so that the areas could be covered quickly. As the yarn was too large to sew through the burlap, it was, therefore, attached on the surface by means of a cord sewn over it. Very large needles with big eyes proved best for this work. For finishing touches, beads, buttons, and sequins were sewn on the fish with a small thread and needle.

With a sigh of great satisfaction, the three projects were hung in place and displayed proudly to parents and visitors. During the process, parents and the maintenance crew were helpful. Many sewing and bead boxes were raided at home. The hangings and drapes were hemmed by a school patron. For the top and bottom of the wall hangings, the maintenance supervisor provided metal pipes and drove nails into the concrete block wall. A local establishment steam pressed the drapes and a patron pleated, hemmed and hung them. These three art projects served as a common undertaking for the school and in the process involved patrons in the community as well.

E. Frances Crimm is art consultant for the public schools of Shelby, North Carolina. The program was at Graham School.

Modeling in wire

Gerald F. Brommer

Wire sculpture may help the student in many ways to find new means for communicating ideas, developing greater dexterity, and bridging the transition from two- to three-dimensional creative art experiences.

PHOTOS BY DAVID MITTENZWEI



The rather sophisticated horseman illustrated above was made by combining different types of wire. Students were made aware of the wire's flexibility as they were encouraged to twist and bend material until they achieved a sculpture.

Wire is an expressive medium, working well as a transition problem between two- and three-dimensional creative art forms. Since wire is really line, it has already been twisted, pulled, crumbled, bent, stretched and drawn in countless two-

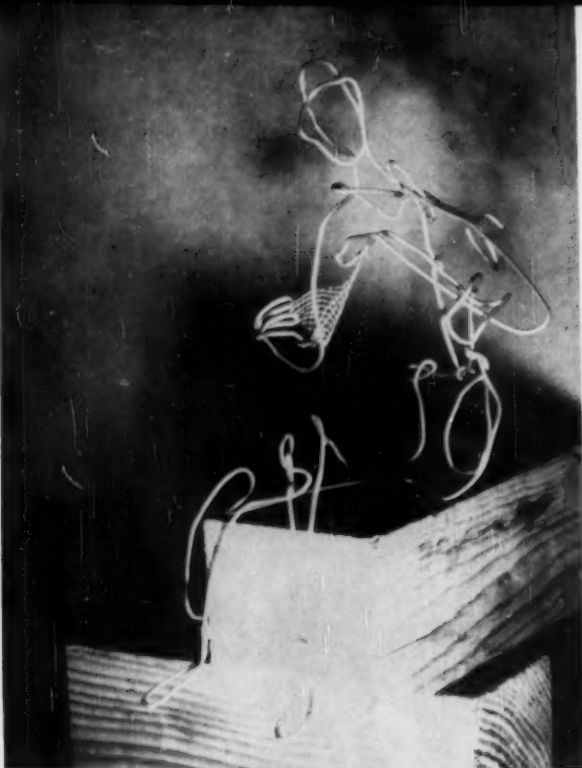
dimensional activities, and may already be classed as an old friend. But wire is really a three-dimensional line, therefore having added interest and motivation for creative work at all grade levels.

To each art teacher, wire solves a different problem. You may have trouble getting the student to work quickly and deftly. You may have a simple problem in manual dexterity, or your students might be confronted with the basic problem of communicating ideas. Many students have trouble just simply seeing or imagining in the third dimension. Wire is certainly not a cure-all, but for many of the problems it does offer help, and because of its variety of creative aspects, lends itself well to many solutions. At lower grade levels, communication and rapidity should be considered essential. With a creative atmosphere in the classroom, ideas will be exchanged and many wonderful things will happen. With several feet of soft wire, many shapes might be formed in one period. The shapes will probably be more two-dimensional at first, but by experimental twisting and bending into grotesque poses, the idea of three-dimensionality will soon be founded. Merely trying to make the "things" stand up will produce the essence of the third dimension.

In all probability, the higher the grade level, the more time will be taken by the student—there are more ways to try and more searching to be done before the product is satisfying. Yet there is great value in the "quick sketch" method employed by figure drawing people—using two feet of soft wire and a few minutes. Have the students move around and exchange ideas, offer suggestions, search, and look. At the high school level, deeper insights into art concepts are offered—greater control of the sinuous line, use of some basic tools, the purely creative act of shaping wire from a coil to a pleasing shape. Wire sculpture offers a fine opportunity to do research in the basic shapes and movements of animals and people. Sketches, continuous line drawings, study of basic muscle structure, and real looking and seeing will prove extremely valuable when time comes to begin twisting that wire.

The problem of teaching simplification of form and shape can be approached with the wire forming technique. The photographs will show that the simple form "reads" just as well if not better than a more complicated sculpture of the same subject. There is an abundance of contemporary wire and metal sculpture that may be reviewed and studied in conjunction with this activity.

Wire may be found in a variety of places, and the purpose of this article is not to attempt a list of sources. The resourceful teacher will find more than enough with little effort. Since no specific gage wire is "the best," surplus stores, phone company scrap piles, hardware stores, and the students' own garages may be visited. Some wire may be purchased and some may be found. Many types should be brought in. Some may certainly be discarded but the greater the variety, the greater the creative urge to experiment, and the greater and more interesting will be the fin-



The utilization of various types of wire added more interest.

ished work. Experimentation will show the teacher what works best in each situation.

Probably the easiest wire to work is aluminum. This wire doesn't tarnish, and hence is permanent in color, but its very softness and workability create the problem of durability. Common baling wire is very useful and easily obtained. Brass wire works nicely and adds color, as does the coated wire obtainable from telephone companies. Flat strips of wire used for strapping crates and cartons provide interesting material, used alone or in combination with other wires. Various types of screening may be introduced, and will serve to add textural areas. Any hardware store has a variety of these materials, or construction sites throw away countless scraps of such material.

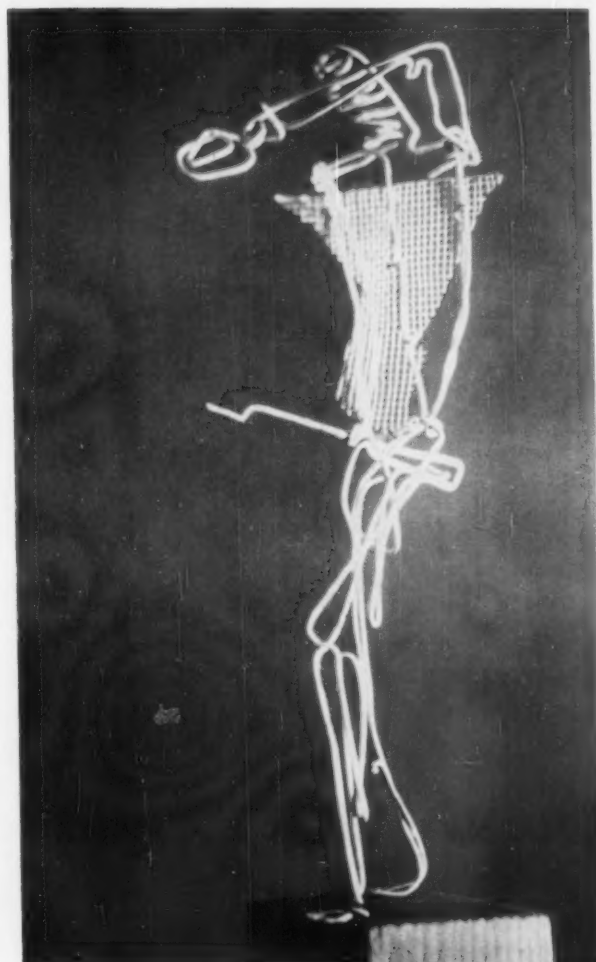
Some teachers may wish their students to solder or weld the wire in place, but this involves other problems and tends to destroy the quick and spontaneous approach, and the fluidity of the clean line. Pliers, cutters, shapers, and vises are used to advantage. Many unconventional tools may also be used, especially with the softer and more pliable wires. Shaping and coaxing with the fingers is the ideal, but in many situations the wire is too heavy or uncooperative, and the basic tools should be used.

As the potential wire shaper holds a six-foot piece of curling line in his hands, he will ask himself, "What shall I form?" Working with wire may start from either of two approaches. The sculptor may have his finished product in mind from the beginning, and may incorporate changes as the shaping progresses. Another student may feel the quality of the wire, and begin bending and coaxing and

allow the developing form to suggest its conclusion, which might be completely nonobjective. The sinuous line can suggest many things, and will definitely inspire movement and activity. Looking at some of the pictures will show that animal and human forms are easily created, since the need for complete representation is not desired. This allows for confidence in working with animal forms that might not be possible for some students with other media. Either end of the wire may be the starting point for the shaping. Some find it best to begin about the center of the section of wire and work the trailing ends simultaneously. Experimentation will determine which is best in each situation.

Mounting of the forms may be done on scrap lumber or on finished bases. Pieces of two-by-fours or four-by-fours can be gotten on construction jobs by just asking the foreman. The enjoyment of working with wire can be derived at all grade levels.

Gerald F. Brommer teaches art at Lutheran High School, Hollywood, California. The photographs used to illustrate his article were taken by David Mittenzwei, junior student.



Pictures with clay

Frank Shore

Modeling clay may serve an additional purpose by its being used for painting rather than modeling. The author describes the use of colored modeling clay as a substitute for commonly used and known pigments.



PHOTO BY THE AUTHOR

Modeling clay is used to produce interesting clay paintings.

Colored modeling clay affords a novel and effective medium for making pictures that resemble oil paintings. The non-hardening type of clay does indeed possess most of the characteristics of oil paint: pigment, oil, and body or filler. It contains more solid material and an oil that does not evaporate. Since the clay is applied in small dabs with the forefinger, no brushes are needed, and, of course, no turpentine is used. Because this method is much simpler and cleaner than oil painting, it is recommended as a means of teaching children the fundamentals of painting in color. On the other hand, colored modeling clay may be regarded as a substantial medium for self-expression in art by adults as well as children.

Nontoxic modeling clay in an array of colors is available in small quantities. It is a good idea to choose the primary and secondary colors, plus brown and gray. White and some intermediary colors and shades may also be purchased at some stores. Small pieces of each color may be mounted on a homemade palette. The palette may be cut with scissors from a piece of corrugated cardboard with two flat surfaces. For this purpose a piece of cardboard about

nine by twelve inches or somewhat larger is recommended. The pictures, too, may be made on the same kind of cardboard, as it has the right type of surface, is light and rigid. Other cardboards with a rough surface or canvas-covered boards may also be used, if preferred. The completed picture could be framed like an oil painting. However, a sheet of plastic or glass will provide protection from dust, since the surface of the clay is not easy to clean. Narrow strips of corrugated cardboard may be glued around the edges of the picture to act as spacers between the clay and the glass or plastic. When this procedure is planned, a margin about three-quarters of an inch is left uncovered around the picture surface.

Regarding techniques, I can only make a few suggestions. The main idea is that you can easily develop your own method of "painting" with colored clay. I started by sketching the tree in a very simple outline with pencil, on a piece of corrugated cardboard. Then I dabbed on very small pieces of clay, starting with the darker areas, which formed the foundation and framework of the tree. Next came the application of the medium shades and finally, the light shades. In some places where contrast was needed, colors were left unblended. In other areas the colors were blended by rubbing them with my forefinger. Additional colors may be obtained by mixing two or more pieces of clay between thumb and forefinger. Another method is to dab them on the cardboard and blend the colors by rubbing them together with the finger right on the picture. This is an appropriate technique in covering large areas such as the sky. Making alterations in the picture is a simple matter. Almost any sort of blunt blade may be used to remove the unwanted clay, and then it is replaced without showing any sign of repair. Since the clay does not harden, improvements in a picture may be made long after it has been presumed finished.

Frank Shore is a free-lance designer of alphabets, writer. He operates the Shore School of Lettering, New York City.

Gum arabic / tempera

Anna Dunser

Just as an experiment the teacher brought some gum arabic into the art room to be used with tempera paint. The gum arabic was used in several different ways by the pupils and proved interesting. The children were equipped with small pans such as are used with transparent water-color paints. The teacher mixed some of the gum arabic with water, about a tablespoonful to a pint of water, and poured this mixture into the individual water pans.

Jack went to the paint table for three jars of paint. He experimented by dipping his brush in the paint, then in the water-gum arabic mixture, each time he applied paint to the paper. He found the paint flowed freely and one color mixed with another where they met. The paint was easily

moved about on the paper and it was a delight to handle. Jean used the gum arabic solution to make the entire surface wet, then placed the paint on the paper in spots of various sizes and shapes. She, too, found the paint was easy to handle and always gave interesting results.

Another experiment was to mix the gum arabic with small amounts of the paint and add water to thin it. The brush was then dipped in the paint and applied to the paper in the usual way. No matter how the gum arabic was mixed with the paint, it was found that the mixture was a pleasure to manipulate and gave many different and surprising effects.

The children did not attempt to make any representational pictures though they might have done so. They simply spotted the page with color. The more successful effects were achieved when only two or three colors were used. Many new tints and shades were produced where the paint mixed on the paper. When the work of painting was finished and was completely dry each child studied his page to see what he could find and was encouraged to develop the various shapes discovered.

The gum arabic is inexpensive and can be purchased at any drugstore.

Anna Dunser has been a frequent contributor to School Arts.

Gum arabic is used as a medium with tempera. By experimenting with its usage students can achieve interesting results.

PHOTO BY SCHWEIKHARD STUDIO



Melted crayon masks

An interesting texture may be acquired by applying many layers of melted wax crayon to a papier-mâché mask. A high gloss resulted from polishing the wax. Melted crayon may also be used to cover rusty wire.

Carol J. Brown

The making of masks never seems to lose its fascination no matter what age group is involved. This time the problem was presented to a beginning high school group and they decided to try something different. Finally, they decided it would be interesting to experiment with wax crayon paint. They had a fine time making the bases for their masks on the faces of friends. Cheesecloth was spread on the face and paper tape was cut into small pieces and made to fit around the main contours they wished to develop. When the taping is complete the mask is stuffed, to retain its shape, with newspapers and placed on a cardboard. Then the layers of papier-mâché are applied—at least three layers—and allowed to dry—giving a hard base. The features can then be formed with tissue dipped in paste. One important thing they learned here was to overemphasize features in order to make them show up. The papier-mâché is complete when the mask is covered with small pieces of paper toweling.

Now for the crayon coating. All the scrap crayons were cut into very small pieces and put into a coffee can. The crayon was then melted on the stove. (Great precautions should be taken with the hot crayon.) The crayons should be melted to a very thin consistency. Then old brushes should be used and the crayon painted on quickly. (Brushes can be used again if they are cleaned immediately in boiling water.) An interesting texture can be acquired by merely building up layers of crayon. If a highly polished surface is wanted you can easily polish the crayon to a high gloss. Unusual surfaces can be created by dripping or splattering different colors. Crayon paint has any number of unexplored uses. We have used it frequently in paintings, but we recently used the process to cover some rusty wire-sculptured animals. The colored crayon gave the animals a gay charm and texture which the old rusty wire did not have.

The author teaches in the high school at Hoagland, Indiana.



PHOTOS BY SCHWEIKHARD STUDIO

Papier-mâché mask covered with melted wax crayon scraps.

Wax crayon surface is shined to high patina for variation.



PARENTS HELP ENRICH THE ART PROGRAM

Interested parents form a P.T.A. art committee which actively participates by helping the art teacher in various ways. Cooperation of this type does much to develop understanding between school and parent.

Blanche E. Hart

Two parents of the art committee put the finishing touches to an exhibition of child art produced at the North Street School, Greenwich, Conn. Why not one for your school?

PHOTO BY ALLISON BISHORIC



A number of years ago, in discussing the Art program with a group of Greenwich Public School parents, it was apparent they were very anxious to enrich the Art program in their particular schools. Therefore, P.T.A. Art committees were formed wherever enough interested parents could be found. To date, we have Art committees in eight of our ten elementary schools. These committees, aided by the art supervisor and art teacher, arrange for and hang art exhibits, the children's own work, help with P.T.A. art demonstrations and plan field trips for the students.

In the past year we have circulated, through our twelve schools, exhibits of children's work from Japan, Puerto Rico, exhibits supplied by the U.N. and Red Cross (covering children's work from many countries) and a very unusual exhibit of African native crafts. We have also had exhibits of modern architecture, of Parents' art, and Oriental art, to name just a few.

Once the yearly schedule of exhibits has been arranged, the art committee and the art teacher receive a program from the art department office. The parent groups then spring into action when the exhibit arrives. Each exhibit is limited to two weeks and only a third of the year is devoted to loan exhibits. The children's own work is displayed the rest of the year. Recessed cases and peg boards allow for the display of three-dimensional projects. Incidentally, if you're wondering how we hung the pictures on brick, glass or wood surfaces, Bulletin Board Wax is the answer.

The aim of the North Street School exhibit was to make parents aware of the Art Program in the school and to stress our philosophy that "Every child is a potential creator endowed with those sensibilities that characterize the artist." We do not claim that every child will produce masterpieces or become an artist. This concept transcends the idea of art as a performance or a product and looks upon art as a way of living—"the means of enjoying and enriching life through creative experience" (words of Victor D'Amico). Our aim is to also show what each child is getting out of this program.

Regular classroom art examples including all media were selected and an effort was made to secure at least one painting, or other creative piece from each child. Selections were made by the art teacher and the art committee, the art committee then assuming all responsibility for mounting and hanging the show. Publicity and programs were executed by regular P.T.A. committees. We estimate approximately 1000 pieces were displayed.

Blanche E. Hart is art supervisor of Greenwich, Connecticut.

Making asbestos murals

Leslie Peacock

Fibrous asbestos, wheat paste and casein glue make an excellent modeling material which can be used for both two- and three-dimensional art activities. The material offers many possibilities for experimenting.

Asbestos, a fascinating material, is becoming a popular medium of expression for students. This activity requires few materials and little equipment. Fibrous asbestos, wheat paste, backboards (celotex or plywood), casein glue, knives, objects for creating texture, and powdered tempera are all that is needed. The asbestos is mixed by pouring dry asbestos into a large pan and mixing wheat paste in a separate container. Add wheat paste and a small amount of water to asbestos. Then mix with spoon or squeeze with hands. When ready for use, mixture should form a sticky mass almost the consistency of modeling clay.

Cut sections of backboard into pieces of equal size. Size will often be determined by the number of people to work on each section. Draw a pencil outline on backboard and



The asbestos mixture was used effectively to model the panel illustrated above. The bas-relief created by modeling the material offers many possibilities for experimentation. A mixture of this type could offer children at various ages diversified sculptural experiences. Paint is easily applied.

After adding a small amount of water to the fibrous asbestos and wheat paste, the mixture can be mixed and kneaded by hand.

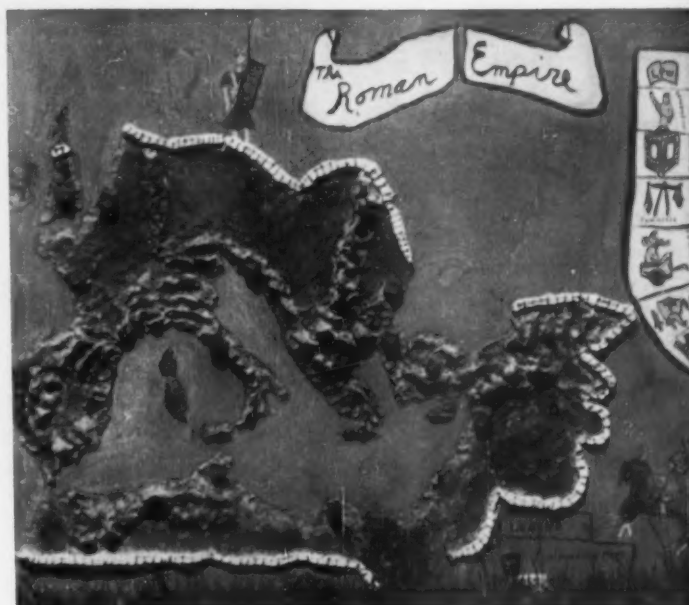
PHOTOS BY THE AUTHOR



apply casein glue to small areas at a time. Press asbestos mixture onto glued areas and shape with fingers. Smooth with fingers or a damp sponge. Press with sticks or other small objects to develop interesting textures. Background may be left vacant and painted in later. When picture is filled in, it can be painted before or after drying.

This activity may easily be correlated with other subjects. Some favorite topics are: maps, puppet heads, history of transportation, history of man, prehistoric animals, nature, astronomy, other cultures, etc. Sectional murals may be made separately and joined together when completed. This wonderful medium of art will stimulate much enthusiasm and may be carried out with a minimum of confusion. It is a self-directive experience requiring only simple planning and preparation. The results will be most satisfying for creative expression.

Asbestos is an excellent modeling material. The wheat paste acts as a binder. Before beginning a planned activity with this material some time should be allowed for experimentation and exploration. Using cardboard for backboards, asbestos can be shaped, applied without glue, removed and reshaped if desired. This gives a feeling and helps to develop an understanding for what the material can do. Try it with your children. They will like it.



A study of the Roman Empire produced the relief map shown.

Leslie Peacock teaches sixth grade in Jacksonville, Florida.

Casein glue is applied to a small area at a time. The asbestos is then pressed onto the glued areas and shaped with fingers.

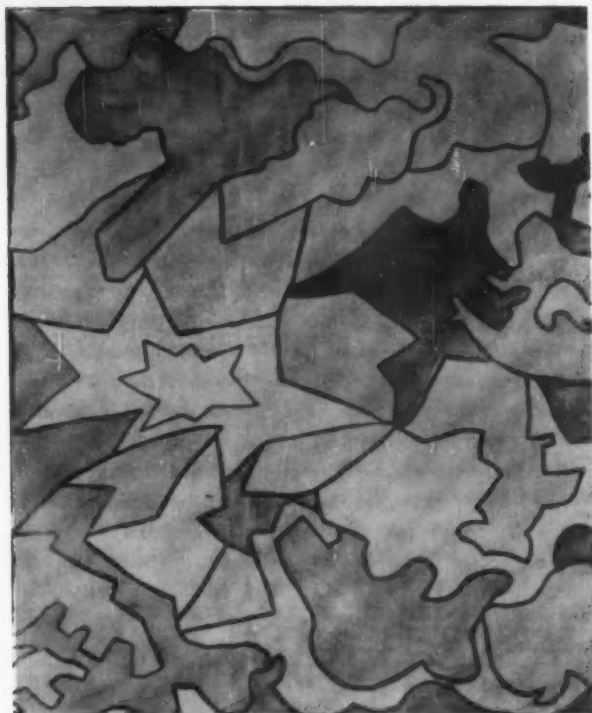


Ralph M. Pearson

Sixth of a series of articles on design, prepared for us just before the author's untimely death on April 27, 1958.

EXPERIENCING CREATIVE DESIGN

Examples of space design in pictures



1 Areas of flat-color and flat-pattern develop design above.

It may help in assimilating the values of free creative design that we have been discussing to see some simple examples of their applications in pictures. Hence I present the following exhibit, all done by students:

Fig. 1 is a flat-color, flat-pattern design of free shapes. Of course it is not a significant work of art. It, again, is an exercise for the purpose of developing sensitivity, first to groups of color notes, then to the shapes into which they may be built. Here the colors are flat, as in house-painting, and the shapes are more consciously planned—which means intellect has combined with feeling. This combination gives the picture a dry look; emotion is almost drained out of it;

the main value as an exercise lies in its development of precision of shapes as shapes; it is one step among many toward the goal of creative design. The outlines suggest the accented (by leads) pattern of a stained-glass window.

Fig. 2 restores emotion to its necessary dominance; feeling reigns supreme. Here an impulsive brush has been restrained only enough to hold color into ultra-free shapes—the purpose of this exercise. The brush, being free and playful, experiments with different effects that become possible through varied handlings and movements—through textures, in other words. Textures are another bag of tricks

2 Free brush work helped develop a wide variety of texture.



at the artist's command waiting to be exploited. Relatively few artists make deliberate use of them, much less exploit them; hence a series of exploiting exercises will extend an artist's vocabulary. Is not the eye-appeal greatly enlivened in Fig. 2, as compared to Fig. 1? The outlines here catch the unique un-thought-out shapes created by the temperamental brush.

Fig. 3 again adds subject symbols to shape-design. See how easily this twelve-year-old combines the abstract and the real with his unconscious sense of design which unifies the whole. He is unafraid. He is positive. He "says" what is in him to say without much ado about anything. He had fun, even though he didn't know how it could be named esthetic. What more can any beginner in picture-making ask?

In Fig. 4 an adult who is not a beginner had fun in the same way. She had seen a country auction, so went home and portrayed her memory of it, not repressing a native sense of humor. She may have made notes at the actual scene to



3 A twelve-year-old combines the real with the abstract in producing an extremely forceful unconscious sense of design.

4 Flat-pattern method is used by an adult to tell her story.

PHOTO BY JAMES P. CELENTANO



later refresh her memory of the characteristic shapes of pants, skirts, bonnets or the old man's beard, but she didn't sit down and "sketch" facts to be recorded as is. She built them into her own ensemble. She *created* her own picture. She dramatized an auction. That is what art is for. And she kept to the flat-pattern shapes on purpose, arranged in deep space—to simplify the effect, to hold it down to an exercise, rather than try for a masterpiece. This flat-pattern method is but one of many steps toward mature work, including "realism." Realism, by the way, can be designed whereas Naturalism, by its very nature cannot. Realism recreates subject to express its inner reality; naturalism copies surface facts.

These four examples show how creative design can permeate various kinds of pictures, from the abstract through the semiabstract to the realistic. They prove, I think, that the ordering of the parts into a unified whole, into a *design*, that is to say, is the one element common to all, that it alone cannot be eliminated—because, if it were, the art would be eliminated; chaos would reign supreme. Design is the nemesis of chaos.

Taking a tip from Fig. 2, we shall do some exploring into the jungle of Textures in the next article. As a prelude, you might start counting the textures you see about you in an outdoor scene in a five-minute walk. Then do the same indoors in a five-minute sit. It would be amusing to estimate in advance what you think your total will be, then compare notes. My guess is that you will be surprised. Intellectualized eyes don't see as much as sensitized ones.

The author is best remembered for *The New Art Education*. He wrote a number of other books, well known to artists and art educators. Throughout his career as artist, teacher, and writer, he was a staunch advocate of planned design. While he admired and endorsed the work of many contemporary artists, he never believed that art happened by accident, and consequently led a crusade for thoughtful design in art. This series of articles was prepared for *School Arts* just before his death last April. They are his last writings.

Will the continued emphasis on the use of scrap and discarded materials in the art program ultimately contribute to lower standards in art and lead to inadequate budgets for the area?

Victor D'Amico, director, department of education, The Museum of Modern Art, New York City, New York, says: The emphasis on scrap material may both lower standards and the prestige of art education if the accent is on economy. The aim of using a variety of materials is that it develops awareness and inventiveness and adds richness to the art experience. Therefore, both salvaged and new materials should be supplied. Experience limited to waste only may be a handicap or become monotonous in time. In fact, it may even increase the budget because of the quantity of adhesives, mounting boards and special tools required. It seems psychologically unwise to put the emphasis on waste or even to call it "scrap" or to promote its use as a saving.

Jean Johnson, supervisor, art education, Dade County, Miami, Florida, says: With cost no object, Picasso finds inspiration and media in "found" materials, creating a garden sculpture from discarded metal toys. Teach the budget-maker to value art, not for its cost or for its lack of cost, but for its value to the human spirit. The administrator puts his money and his teacher-time where his values are. The solution to the problem of too little money for the art program is to attack the ignorance of the administrator, not to deny the opportunity to collect inspiration from scrap materials for fear of someone's misunderstanding their value.

Mary Adeline McKibbin, director of art, Pittsburgh, Pennsylvania, says: Scrap materials have value if used to stimulate creative thinking in the solution of problems presented by unfamiliar materials. Unfortunately scrap is frequently misused: combined without understanding in the coat-hanger "mobile" from which junk is suspended; or assembled into trick stereotypes, shoe box animals or eggshell clown heads. Regardless of what is meant by "standards," the misuse of scrap material violates all art standards, since the experience is neither creative nor aesthetic. Scrap should supplement, not replace, standard art supplies.

Charles D. Gaitskell, director of art, Province of Ontario, Toronto, Canada, says: There should be no more emphasis in the use of scrap for art than for any other subject. Scrap is sometimes useful in such art work as puppetry. Most art activities, and indeed perhaps the most important ones, require new materials of high quality. Competent school authorities know that good education costs money. If they do not realize that art requires its share of the educational budget, they should be forcefully made aware of this fact. For the art teacher to try to get along with junk when good

issues of the day

materials are needed, is to do a disservice to art and to create a false impression in the mind of the administrator.

Lois Lord, head, art department, New Lincoln School, New York City, says: To put emphasis on where a material is found rather than on how children will create with it will damage any art program. In collage and construction a variety of materials are needed. Each school should allow in the budget for these. Because working in collage and construction helps children become more sensitive to their surroundings, a natural outgrowth will be the addition of materials pupils and teachers seek in their environment.

John Lembach, professor of art education, University of Maryland, College Park, Maryland, says: Yes, if we allow our art program to be scrap materials alone—if we continue to use discarded materials in a conventional manner, and if we do not evaluate our entire program constantly and critically in terms of individual and group needs. Such materials should continue to be what they were originally in the art program: an excellent means of enriching student experience.

Marion F. T. Johnson, educational director, Delaware Art Center, Wilmington, Delaware, says: Such materials should always be considered supplementary to other art supplies, not replacements for them. The discovery of unfamiliar materials affords a rich aesthetic experience and develops inventiveness in many children. One often finds a need for more tools or a different kind of process as a result. Some of our most satisfying art experiences have come through the use of plastics, cork, wire, glass, metal and a wide assortment of items which we file away to draw on as needed, especially for three-dimensional work. If used as substitutes inadequate budgets might develop.

Robert Squeri, associate professor of art, State University of New York, College for Teachers at Buffalo, says: Any art curriculum which has heavily relied upon scrap materials is in need of evaluation; both from the educational and the budgetary viewpoints. Too many art educators have tried to demonstrate their versatility to the administration by using scrap in order to keep the budget to a minimum. The uninformed administrator is only too happy to see costs cut. If monies for the allocation of art supplies have been cut, much, if not most of the blame, rests on the shoulders of the art teacher who has overemphasized scrap materials in his program. Scrap material may effectively supplement a program occasionally, but of late has almost come to dominate it.

Enjoy the Latest Developments in Ceramic Kiln Engineering



AMACO ELECTRIC KILNS



Choose from 21 Models of Pottery and Metal Enameling Kilns. Approved by Underwriters' Laboratories, Inc. as Complete Firing Units.

Products Liability Insurance carried on all Amaco Kilns.

FREE CATALOG No. 44

Lists 23 pottery and metal enameling kilns in a wide range of sizes and prices, potters wheels, clays, glazes, ceramic and enameling supplies. 60 pages.

AMERICAN ART CLAY COMPANY

4719 WEST 16TH STREET • INDIANAPOLIS 24, INDIANA

ARTISTS, take a whiff . . . by using any one or all of the 36 professional SPEEDBALL points . . . plus 4 steel brushes for large size lettering. Five styles provide any lettering combination . . .

**SWEET
SMELL
OF
SUCCESS**

allow you to produce drawings with feeling and finish that earn immediate approval. Comprehensive lettering charts on request for only eight cents in stamps.

"SPEEDBALL"

C. HOWARD HUNT PEN COMPANY, CAMDEN 1, N. J.

EIGHTEENTH YEAR

1959 BUYERS' GUIDE

School Arts publishes this directory each year as a service to its readers and advertisers. Use it for ordering art and craft materials, equipment, and publications or in locating schools, travel opportunities and other services.

The following is an alphabetical listing of materials and equipment used by art and craft teachers. Concerns who manufacture the items are shown under the various categories and the trade names of their products are shown in quotes—helpful in identifying and ordering your favorites. At the end of this listing you will find the addresses of manufacturers. Company names preceded by a dot (•) are advertisers in this issue. Catalogs and descriptive folders are available from most of these concerns, and usually at no cost to those who request them on school stationery.

ADHESIVES

- Adhesive Products Corp.
- "Adrub"
- Alabastine Paint Products
- Anchor Dough
- Arabol Mfg. Company, The
- Bro-Dart Industries
- "Bind-Art"
- Brooks Manufacturing Co.
- "Plasti-Tak"
- Carter's Ink Company, The
- Delkote, Inc.
- "Book-Saver," "Tak"
- Hercules Chemical Co., Inc.
- "Plastic Aluminum"
- Java Latex & Chemical Corp.
- Minnesota Mining & Mfg. Co.
- "3M Brand"
- Polymer Chemical Company
- "Polyco" (artists' cement), "Permaweld"
- (leather cement)
- Sanford Ink Company
- Talens & Son, Inc.
- Testor Corp., The
- Union Rubber & Asbestos Co.
- "Best-Test"
- Walco Bead Company
- Wilhold Products Company
- "Wilhold Contact Cement," "Wilhold Ree-Stik"

BASKETRY SUPPLIES

- S & S Leather Company
- "Gildcraft"
- Walco Bead Company

BEADS

- Handcrafters, The
- "Peacock Coralite"
- Walco Bead Company

BOOKBINDING SUPPLIES AND EQUIPMENT

- Delkote, Inc.
- "Bookote" (lacquer), "Bookleen" (cleaner)
- Higgins Ink Co., Inc.
- Tauber Plastics, Inc.

BRUSHES, SCHOOL

- Binney & Smith, Inc.
- "Artista"
- Bradley, Milton Company
- Craftint Mfg. Company, The
- "Craftint-Devoe"
- Delta Brush Mfg. Corp.
- "School Approved"
- Gemexco, Inc.
- "GXO," "Oleo"
- M. Grumbacher, Inc.
- "Gainsborough," "Pre-tested," "Michelangelo"
- Hunt, C. Howard Pen Company
- "Speedball Special"
- Palmer Show Card Paint Co.
- Permanent Pigments, Inc.
- Rich Art Color Company, Inc.
- Utrecht Linens
- F. Weber Company
- "Malfa," "School Art"
- Winsor & Newton, Inc.

CANVAS

- Craftint Mfg. Company, The
- "Craftint-Fulton"
- M. Grumbacher, Inc.
- Lewis Fabrics
- Permanent Pigments, Inc.
- Rich Art Color Company, Inc.
- Talens & Son, Inc.
- Utrecht Linens
- F. Weber Company
- "Weber"
- Winsor & Newton, Inc.

CHALK

- Advance Crayon & Color Corp.
- "Tom Sawyer"
- American Art Clay Company
- "Amaco," "Justrite," "White Star"
- American Crayon Company, The
- "Hygieia"
- Art Crayon Company, The
- "Sargent," "Gothic"
- Binney & Smith, Inc.
- "Anti-Dust," "An-Du-Septic"
- Weber Costello Company
- "P/C Alphasite," "Alpha," "Omega"

CHALKBOARD

- E. H. Sheldon Equipment Co.
- Weber Costello Company
- "Hyloplate," "Sterling"

CHARCOAL STICKS

- Craftint Mfg. Company, The
- "Craftint-Devoe"
- M. Grumbacher, Inc.
- Permanent Pigments, Inc.
- Rich Art Color Company, The
- F. Weber Company
- "Weber"
- Weber Costello Company
- "Char-Kole"
- Winsor & Newton, Inc.

CLAY: CASTING, MODELING, POTTERY

- Advance Crayon & Color Corp.
- modeling "Spectrum"
- American Art Clay Company
- modeling "Amaco," "Permoplast," casting
- "Ivory Carving," "Marblex"; pottery "Mexican Pottery"
- Art Crayon Company, Inc.
- modeling "Sargent," "Gothic"
- Binney & Smith, Inc.
- modeling "Clayola," "Modeline"
- Bradley, Milton Company
- modeling "Clayrite," "Tru-model"
- Drakenfeld, B. F. & Co., Inc.
- casting, pottery
- M. Grumbacher, Inc.
- modeling
- O. Hommel Company, The
- casting, pottery
- Montgomery Studio
- modeling "Modoclay"
- Norman Ceramics Co., Inc.
- casting, pottery

- Permanent Pigments, Inc.
- modeling
- Rich Art Color Company, Inc.
- modeling
- Stewart Clay Co., Inc.
- casting "Clay-Cene," "Ceraclay"; modeling
- "Model-Light"; pottery "Plastalena"
- Tepping Studio Supply Company
- casting, modeling, pottery
- F. Weber Company
- modeling "Plastilina"
- Western Ceramics Supply Company
- pottery
- Wolfe, Jack D. Co., Inc.
- casting, modeling, pottery

CLEANERS AND ERASERS

- American Crayon Company, The
- "Hygieia"
- Carter's Ink Company, The
- Eagle Pencil Company
- Faber, Eberhard Pencil Company
- "School Gum"
- Rich Art Color Company, The
- Venus Pen and Pencil Corp.
- F. Weber Company
- Winsor & Newton, Inc.

COLORS, ENAMELING

- Alabastine Paint Products
- American Art Clay Company
- "Amaco"
- Ceramichrome Laboratories
- Drakenfeld, B. F. & Co., Inc.
- Thompson, Thomas C. Company
- Vitro Manufacturing Company
- Western Ceramics Supply Company

COLORS, PIGMENTED

- Alabastine Paint Products
- Carter's Ink Company, The
- Drakenfeld, B. F. & Co., Inc.
- Floquil Products, Inc.
- "Flo-Paque"
- Palmer Show Card Paint Co.
- Rich Art Color Company, Inc.
- Vitro Manufacturing Company
- F. Weber Company
- "Weber"
- Weber Costello Company
- "Alphacolor Dry Tempera"
- Winsor & Newton, Inc.

CRAYONS

- Advance Crayon & Color Corp.
- "Colorcraft," "Wisk Off"
- American Art Clay Company
- "Amaco"
- American Crayon Company, The
- "Crayonex," "Sketch," "Payons"
- Art Crayon Company, Inc.
- "Sargent," "Gothic"
- Binney & Smith, Inc.
- "Crayola," "Perma," "Besco"
- Bradley, Milton Company
- "Crayrite," "Copley," "Tru-tone," "Redskin Watercolor"

(Buyers' Guide continued on page 34)

- M. Grumbacher, Inc.
- Talens & Son, Inc.
- Utrecht Linens
- Weber Costello Company
- "Alphacolor Watercolor Crayons"

CUTTERS, PAPER

- Bradley, Milton Company
- "Multi-Purpose"
- Bro-Dart Industries
- "Safety-Shear"

DESIGNS, REFERENCE

- Creek Turn
- O-P Craft Co., Inc., The
- St. Louis Crafts, Inc.

DISPENSERS, TEMPERA PAINT

- Lamp Products
- "Flex-Flo"

DRAWING BOARDS

- Garrett Tubular Products, Inc.
- "Harco of Garrett"
- Hamilton Manufacturing Company
- National Card, Mat & Board Co.
- "Nat-Mat," "Hi-Art"
- F. Weber Company
- "B/B" (Balsa-Basswood)

EASELS

- Bradley, Milton Company
- Easel Seat
- Educational Equipment Co.
- "Edco"
- M. Grumbacher, Inc.
- Permanent Pigments, Inc.
- Rich Art Color Company, Inc.
- E. H. Sheldon Equipment Co.
- F. Weber Company
- "Weber," "Academy," "Ideal"
- Winsor & Newton, Inc.

ENAMELING SUPPLIES

- American Art Clay Company
- "Amaco"
- Bergen Arts & Crafts, Inc.
- William Dixon, Inc.
- Hercules Chemical Co., Inc.
- "Swift Solder"
- Immerman & Sons
- "Copper Shop," "Duo-Kiln"
- Testor Corp., The
- Thompson, Thomas C. Company
- Western Ceramics Supply Company
- Wolfe, Jack D. Co., Inc.

ETCHING TOOLS AND SUPPLIES

- William Dixon, Inc.
- Eagle Pencil Company
- St. Louis Crafts, Inc.
- F. Weber Company
- "Weber"
- Wolfe, Jack D. Co., Inc.

FELTCRAFT SUPPLIES

- Handcrafters, The
- "Peacock"
- Lewis Fabrics
- Walco Bead Company

FIXATIVES

- Adhesive Products Corp.
- Art Crayon Company, Inc.
- "Sargent"
- Bro-Dart Industries
- "Plasti-lac"
- Craftint Mfg. Company, The
- "Craftint-Devoe"
- Delkote, Inc.
- "Del-Fix"
- Faber, Eberhard Pencil Company
- M. Grumbacher, Inc.
- "Tuffilm"
- Permanent Pigments, Inc.
- Talens & Son, Inc.

- F. Weber Company
- "Weber Blue Label"
- Weber Costello Company
- "Al-Fix"
- Winsor & Newton, Inc.

FOIL, DECORATIVE ALUMINUM

- St. Louis Crafts, Inc.
- Research Products Corporation

FRAMES, ART AND EXHIBIT

- Braquette, Inc.
- "Braquette Adjustable," "Quick Frame"
- Craftint Mfg. Company, The

FURNITURE, ART AND CRAFT

- Arisco Associates
- Bradley, Milton Company
- Desks of America, Inc.
- Garrett Tubular Products, Inc.
- "Harco of Garrett"
- Hamilton Manufacturing Company
- School Equipment Mfg. Corp.
- "Grade-Aid"
- E. H. Sheldon Equipment Co.
- Technical Furniture, Inc.
- F. Weber Company
- "School Art," "Hermes," "Apollo," "Ajax," "Tozer"

GLAZES, CERAMIC, PREPARED

- Alabastine Paint Products
- American Art Clay Company
- "Amaco"
- Ceramichrome Laboratories
- Creek Turn
- Drakenfeld, B. F. & Co., Inc.
- O. Hommel Company, The
- Tepping Studio Supply Company
- Western Ceramics Supply Company
- Wolfe, Jack D. Co., Inc.

GLAZING CHEMICALS AND OXIDES, CERAMIC

- American Art Clay Company
- "Amaco"
- Creek Turn
- Drakenfeld, B. F. & Co., Inc.
- O. Hommel Company
- Touch-O-Magic
- "Touch-O-Magic Synthetic Glue"
- Vitro Manufacturing Company
- Western Ceramics Supply Company

GLUES

- Arabol Mfg. Company, The
- Carter's Ink Company, The
- Delkote, Inc.
- Higgins Ink Co., Inc.
- Polymer Chemical Company
- "Permaweld"
- Sanford Ink Company
- Talens & Son, Inc.
- Testor Corp., The
- "Testor White"
- Utrecht Linens
- Walco Bead Company
- Wilhold Products Company
- "Wilhold White Glue"

INKS: BLOCK PRINTING, DRAWING, FELT POINT PEN, POSTER, TEXTILE

- American Crayon Company, The
- block printing; "Prang"
- Art Crayon Company, Inc.
- block printing, drawing; "Sargent"
- Bradley, Milton Company
- block printing; "Tru-tone"
- Carter's Ink Company, The
- drawing, felt point pen, poster
- Craftint Mfg. Company, The
- drawing, "Craftint 66"
- Cushman & Denison Mfg. Company
- felt point pen, poster, textile
- Floquil Products, Inc.
- block printing, felt point pen, poster, textile;
- "Dri-ink"

- M. Grumbacher, Inc.
- block printing, drawing
- Higgins Ink Co., Inc.
- drawing
- Hunt, C. Howard Pen Company
- block printing, drawing, poster, textile;
- "Speedball"
- Iddings Paint Co., Inc.
- poster, "Crown"; textile, "Aqua Process"
- Marsh Stencil Company
- felt point pen, "Marsh T-Ink"
- Naz-Dar Company
- poster, textile
- Palmer Show Card Paint Co.
- poster
- Permanent Pigments, Inc.
- block printing, drawing, felt point pen
- Rich Art Color Company, Inc.
- block printing, drawing, felt point pen, poster,
- textile
- Sanford Ink Company
- felt point pen, textile
- Speedy Products, Inc.
- felt point pen, textile
- Talens & Son, Inc.
- block printing, drawing, poster
- F. Weber Company
- block printing, "Aqua Print"; drawing, poster,
- "Weber"
- Winsor & Newton, Inc.
- block printing, drawing, felt point pen

JEWELRY MAKING TOOLS AND SUPPLIES

- Avalon Manufacturing Corp.
- Bergen Arts and Crafts, Inc.
- Craftools, Inc.
- William Dixon, Inc.
- National Artcraft Supply Co.
- Schrader Instrument Company
- E. H. Sheldon Equipment Co.
- Western Ceramics Supply Company

KILNS: ELECTRIC, GAS, ENAMELING

- American Art Clay Company
- electric, gas, enameling; "Amaco"
- Bergen Arts and Crafts, Inc.
- electric
- Craftools, Inc.
- Drakenfeld, B. F. & Co., Inc.
- electric, enameling
- Educational Equipment Company
- electric, enameling; "Edco"
- Electric Hotpack Company, The
- electric, enameling, plastic; "Hotpack"
- Harrop Ceramic Service Company
- electric, "Schooline"
- O. Hommel Company
- electric, gas
- Immerman & Sons
- electric, enameling; "Duo-Kilns"
- Norman Ceramics Co., Inc.
- electric, enameling
- Stewart Clay Co., Inc.
- electric, enameling; "Craft-Kilns"
- Thompson, Thomas C. Company
- electric, enameling
- Western Ceramics Supply Company

KNIVES, STENCIL

- American Crayon Company, The
- M. Grumbacher, Inc.
- R. Murphy Co., Inc.
- Naz-Dar Company
- O-P Craft Co., Inc., The
- Permanent Pigments, Inc.
- Rich Art Color Company, Inc.

KNIVES, WOOD CARVING

- Craftools, Inc.
- William Dixon, Inc.
- R. Murphy Co., Inc.
- O-P Craft Co., Inc., The
- "Color-Curve"
- Rich Art Color Company, Inc.
- Heidi Slocum Company, Inc.
- "Taylor-Acorn Brand"

LACING: LEATHER, PLASTIC

- Art in Leather
- Hermann Oak Leather Company
- MacPherson Leather Company
- S & S Leather Company
- "Gildcraft Products"

LEATHERS, CRAFT

- Art in Leather
- Avalon Manufacturing Corp.
- Hermann Oak Leather Company
- MacPherson Leather Company
- S & S Leather Company
- "Gildcraft Products"
- Tandy Leather Company

LEATHERCRAFT TOOLS AND SUPPLIES

- Art in Leather
- Avalon Manufacturing Corp.
- William Dixon, Inc.
- J. C. Larson Company
- MacPherson Leather Company
- R. Murphy Co., Inc.
- S & S Leather Company
- "Gildcraft Products"

LETTERING GUIDES

- F. Weber Company
- "Wrico"

LINOLEUM BLOCKS, TOOLS AND SUPPLIES

- Craftools, Inc.
- William Dixon, Inc.
- M. Grumbacher, Inc.
- Hunt, C. Howard Pen Company
- "Speedball Cutters"
- Permanent Pigments, Inc.
- Rich Art Color Company, Inc.
- Heidl Slocum Company, Inc.
- "Taylor-Acorn Brand Lino Block"
- F. Weber Company
- "Weber"

LIQUID RUBBER FOR MOLDS

- Adhesive Products Corp.
- "Admold"
- Java Latex & Chemical Corp.
- Polymer Chemical Company
- "Permold"
- Stewart Clay Co., Inc.
- "Ruba Mold"

LOOMS

- Apple Tree Shop & Loom Room
- "Betty Swing"
- Hilma Berglund
- "Minnesota"
- Bergman Looms
- Educational Equipment Company
- "Edco"
- Handcrafters, The
- "Peacock"
- Lily Mills Company
- Walco Bead Company

METALCRAFT TOOLS AND SUPPLIES

- Aurora Plastics Corporation
- "Coppersmith"
- Craftools, Inc.
- William Dixon, Inc.
- Handcrafters, The
- "Peacock"
- Schrader Instrument Company
- St. Louis Crafts, Inc.

MODELING MATERIAL, PLASTIC

- Delkote, Inc.
- "Del-Form"

MODELING TOOLS AND SUPPLIES

- American Art Clay Company
- "Amaco"

- Craftools, Inc.
- Educational Equipment Company
- "Edco"
- M. Grumbacher, Inc.
- O. Hommel Company
- St. Louis Crafts, Inc.
- Testor Corp., The
- F. Weber Company
- "Weber"
- Western Ceramics Supply Company
- Wonderwood Mfg. Company

MOSAIC TILES AND SUPPLIES

- Creek Turn
- Hobby Mfg. Company
- "Plastic tiles"
- International Crafts, Inc.
- S & S Leather Company
- "Gildcraft Products"
- Stewart Clay Co., Inc.
- "Set-a-Tile"
- Western Ceramics Supply Company
- Wilhold Products Company
- "Groutite Tile Binder"

PAINT: CASEIN, FLUORESCENT, OIL, FINGER, WATER COLOR, TEMPERA, TEXTILE, MURAL

- Advance Crayon & Color Corp.
- oil, finger, tempera, water color; "Colorcraft"
- Alabastine Paint Products
- water color, finger, tempera
- American Art Clay Company
- finger, tempera, water color, textile; "Amaco"
- American Crayon Company, The
- fluorescent, oil, finger, water color, tempera, textile; "Prang"
- Art Crayon Company, Inc.
- finger, oil, tempera, water color; "Sargent," "Hi Test"
- Binney & Smith, Inc.
- finger, "Crayola"; tempera, "Artista"; water color, "Artista"
- Bradley, Milton Company
- finger, "Magi-paint," "Redskin"; water color, tempera, "Color-tone," "Tru-tone," "Vivitone"
- Carter's Ink Company, The
- tempera
- Craftint Mfg. Company, The
- fluorescent, "Craftint"; oil, "Craftint-Devoe"; finger, "Craftint"; water color, tempera, "Craftint-Devoe"; textile
- Floquil Products, Inc.
- fluorescent, "Flo-Glo"; textile, mural, "Flo-Paque"
- M. Grumbacher, Inc.
- casein, oil, "Pre-tested," "MG White Superba"; water colors, "Academy"; tempera
- Iddings Paint Co., Inc.
- casein, "Pro-Teen"; finger, "Student Art"; tempera, "Crown," "Student Art"; mural
- Lawter Chemicals, Inc.
- fluorescent, "Bold," "Hi-Viz"
- Nu Media
- finger, textile, mural
- Palmer Show Card Paint Company
- finger, tempera; "Dry Art"
- Permanent Pigments, Inc.
- casein, oil, water color, mural
- Polymer Tempera, Inc.
- tempera
- Radiant Color Company
- fluorescent "Velva-Glo"
- Rich Art Color Company, Inc.
- fluorescent, oil, finger, tempera, "Fresco"; textile, water color
- Sanford Ink Company
- tempera
- Talens & Son, Inc.
- casein, fluorescent, oil, mural, tempera, textile, water color
- Ultra Violet Products, Inc.
- fluorescent "Blak-Ray"
- F. Weber Company
- oil, "F.A.Q.," "Malfa," "Permalba"; water color, "F.A.Q.," "Malfa," "School Art"; tempera, textile, "Decora"; mural, "Weber"
- Weber Costello Company
- finger, tempera, textile, water color

Winsor & Newton, Inc.
oil, "London Oil Colors"; tempera, "New Art Powder Colors"; water colors, "Scholastic Water Colors"

PALETTE: WOOD, DISPOSAL

- Bee Paper Company, Inc.
- disposal
- Craftint Mfg. Company, The
- wood, disposal
- M. Grumbacher, Inc.
- wood, disposal
- National Card, Mat & Board Company
- disposal
- Permanent Pigments, Inc.
- wood, disposal
- Rich Art Color Company, Inc.
- wood, disposal
- F. Weber Company
- wood, disposal; "Peel Off"
- Winsor & Newton, Inc.

PAPER: ARTISTS' BOARD, DRAWING, COLORED CORRUGATED, COLORED GUMMED, CONSTRUCTION, CREPE, TRACING

- American Crayon Company, The
- construction and poster
- Bee Paper Company, Inc.
- artists' board, sketching and drawing, construction and poster, tracing
- Bemis-Jason Corporation
- colored corrugated, construction, poster
- Bradley, Milton Company
- construction and poster, "Bull's Eye," "Embeco," "Tonal"
- Dennison Mfg. Company
- colored gummed, crepe
- M. Grumbacher, Inc.
- artists' board, sketching and drawing, "Academy," "Gainsborough," "Artcraft"; tracing
- National Card, Mat & Board Company
- artists' board, "Hi-Art"; sketching and drawing, construction and poster, "Nat-Mat"; tracing
- Permanent Pigments, Inc.
- sketching and drawing, tracing
- Radiant Color Company
- colored gummed, construction and poster, "Velva-Glo"
- Rich Art Color Company, Inc.
- artists' board, sketching and drawing, construction and poster, tracing
- Strathmore Paper Company
- artists' board, sketching and drawing, tracing, "Stratmore," "Alexis"
- Utrecht Linens
- artists' board, sketching and drawing
- F. Weber Company
- artists' board, "Sphinx"; sketching and drawing, "Cosmos," "Hermosa," "Sphinx," "Fabriano"; tracing, "Utility," "Orion Bond"

PASTE

- American Crayon Company, The
- "Stixit"
- Arabol Mfg. Company, The
- "Arabol Liquid," "Sno-Drift," "Sphinx"
- Art Crayon Company, Inc.
- "Sargent"
- Binney & Smith, Inc.
- "Firma-Grip"
- Bradley, Milton Company
- "Adhezo"
- Commercial Paste Company, The
- Educational Equipment Company
- "Edco"
- Higgins Ink Co., Inc.
- Rich Art Color Company, Inc.

PASTELS

- Advance Crayon & Color Corp.
- "Colorcraft"
- American Art Clay Company
- "Amaco"
- American Crayon Company, The
- Eagle Pencil Company
- "Primapastel"

(Buyers' Guide continued on page 38)

- M. Grumbacher, Inc.
"Degas," "Edgar," "Renoir"
- Permanent Pigments, Inc.
"Pastel"
- Rich Art Color Company, Inc.
Sanford Ink Company
"Cray-Pas"
- Talens & Son, Inc.
Utrecht Linens
- F. Weber Company
"Aqua Pastel," "Weber"
- Weber Costello Company

PENCILS: CHARCOAL, CARBON, COLORED, DRAWING, MARKING, SKETCHING, WATER COLOR

- American Crayon Company, The
charcoal, colored, drawing, marking, sketching, water color; "Prang"
- Eagle Pencil Company
charcoal, "Charco", colored, "Prismacolor", drawing, "Turquoise"; marking, sketching
- Faber, Eberhard Pencil Company
charcoal, colored, "Mongol"; drawing, marking, sketching, water color
- M. Grumbacher, Inc.
charcoal, colored, drawing, marking, sketching, water color
- Permanent Pigments, Inc.
charcoal, drawing, marking
- Rich Art Color Company, Inc.
charcoal, colored, drawing, marking, sketching, water color
- Venus Pen and Pencil Corp.
colored, drawing, marking, sketching, water color; "Venus-Velvet"
- F. Weber Company
charcoal, "Weber"; drawing, carbon, "Wolff's"
- Winsor & Newton, Inc.
charcoal

PENS, LETTERING AND DRAWING

- Esterbrook Pen Company, The
"Drawlet"
- Gemexco, Inc.
- M. Grumbacher, Inc.
- Hunt, C. Howard Pen Company
"Speedball," "Hunt Artist"
- Rich Art Color Company, Inc.
Heidl Slocum Company, Inc.
"Gillotts"

PENS, MARKING, FELT TIP

- Carter's Ink Company, The
- Cushman & Denison Mfg. Company
"Cado-marker," "Brite-line Marker,"
"Flo-master Felt Tip"
- Floquil Products, Inc.
Gemexco, Inc.
Marsh Stencil Company
"77 Felt Point," "Squeeze Marker"
- Rich Art Color Company, Inc.
Speedry Products, Inc.
"Magic Markers," "Capac Brushpens"

PLASTIC: SHEET, BLOCK, LIQUID

- Craftint Mfg. Company, The
sheet
- Polymer Chemical Company
liquid, "Permaflex," "Elastoplastic" (plastic lacquer)
- Polymer Tempera, Inc.
liquid
- Tauber Plastics, Inc.
sheet, block, liquid

POTTERY TOOLS

- American Art Clay Company
- Craftools, Inc.
Creek Turn
- O. Hommel Company
Norman Ceramics Co., Inc.
Stewart Clay Co., Inc.
"Ceratoools"
- Western Ceramics Supply Company
Wolfe, Jack D. Co., Inc.

POTTERY WHEELS

- American Art Clay Company
"Amaco"
- Craftools, Inc.
- O. Hommel Company
H. B. Klopfenstein and Sons
Norman Ceramics Co., Inc.
Rovin Ceramics
"Foster"
- Wolfe, Jack D. Co., Inc.

PRESSES: BLOCK PRINTING, ETCHING, LITHOGRAPHIC

- Craftools, Inc.
etching, lithographic
- Hunt, C. Howard Pen Company
block printing; "Speedball"
- Laszlo Universal Hand Press Co.
etching, lithographic, "Universal"
- Rich Art Color Company, Inc.
block printing
- F. Weber Company
block printing, "Weber No. 5"; etching, "Weber No. 11"

RAFFIA, COLORED AND NATURAL

- S & S Leather Company

REPRODUCTIONS: SCULPTURE, PAINTING, PRINTS

- Museum Pieces, Inc.
sculpture

SCISSORS AND SHEARS

- Acme Shear Company, The
- Ahlbin, John & Sons, Inc.
"Ja-son," "Cushion Grip"
- William Dixon, Inc.
- Educational Equipment Company
- Oriental Rug Company
- Schrader Instrument Company

SCULPTURING SUPPLIES

- American Art Clay Company
- Craftools, Inc.
- Delkote, Inc.
Hercules Chemical Co., Inc.
"Plastic Aluminum"
- Montgomery Studio
- Stewart Clay Co., Inc.
- Wolfe, Jack D. Co., Inc.
- Wonderwood Mfg. Company

SILK SCREEN SUPPLIES AND EQUIPMENT

- Art Crayon Company, Inc.
"Sargent"
- Craftint Mfg. Company, The
"Craftint-Devoe"
- Iddings Paint Co., Inc.
"Aqua Magic"
- Naz-Dar Company
- Palmer Show Card Paint Company
- Utrecht Linens

SPRAYERS, GLAZE

- American Art Clay Company
"Amaco"
- Craftools, Inc.
Creek Turn
- O. Hommel Company
Western Ceramics Supply Company

TAPE, PRESSURE SENSITIVE

- Gemexco, Inc.
"Cellux"
- Minnesota Mining & Mfg. Company
"Scotch Brand"

TAPE, MASKING

- Minnesota Mining & Mfg. Company
"3M Brand"

THREADS, EMBROIDERY

- Coats & Clark, Inc.
- Lily Mills Company

TILES, CERAMIC FOR DECORATING

- American Art Clay Company
"Amaco"
- Immerman & Sons
- S & S Leather Company
"Gildcraft Products"
- Soriano Ceramics, Inc.
- Stewart Clay Co., Inc.
"Set-a-Tile"
- Western Ceramics Supply Company

VARNISHES, ARTISTS'

- Craftint Mfg. Company, The
"Craftint-Devoe"
- Floquil Products, Inc.
"Flo-Paque"
- M. Grumbacher, Inc.
"Tuffilm"
- O-P Craft Co., Inc., The
"Tempera Tex"
- Permanent Pigments, Inc.
"Taubes"
- Rich Art Color Company, Inc.
- Talens & Son, Inc.
- F. Weber Company
"Flexo," "Synvar," "Univar," "Sphinx"
- Winsor & Newton, Inc.

VISUAL AIDS EQUIPMENT AND SUPPLIES

- Beseler, Chas. Company, The
- Bausch & Lomb Optical Company
- Craftint Mfg. Company, Inc.
- Ultra Violet Products, Inc.
"Blak-Ray"

WAX, SEALING

- Higgins Ink Co., Inc.

WEAVING SUPPLIES

- Bergman Looms
- Lily Mills Company
- Oriental Rug Company

WOOD BLOCKS

- American Crayon Company, The
- O-P Craft Co., Inc., The

WOOD CARVING TOOLS

- Craftools, Inc.
- William Dixon, Inc.
- Dremel Manufacturing Company
- Gemexco, Inc.
- Schrader Instrument Company
- Heidl Slocum Company, Inc.
"Taylor-Acom Brand"

WOOD STAINS AND FINISHES

- Delkote, Inc.
"Delkote"
- Floquil Products, Inc.
"Flo-Stain"
- Testor Corp., The

WOODWORKING MACHINERY

- Dremel Manufacturing Company
"Moto-Shoo"
- Duro Metal Products Company
- Stanley Tools

WOODWORKING TOOLS

- Craftools, Inc.
- William Dixon, Inc.
- Dremel Manufacturing Company
- R. Murphy Co., Inc.
- Stanley Tools

WOODEN ARTICLES TO DECORATE

- Handcrafters, The
"Peacock"
- O-P Craft Co., Inc., The

YARN

- Bergman Looms
- Coats & Clark, Inc.
- Lily Mills Company
- Oriental Rug Company

MANUFACTURERS OF MATERIALS AND EQUIPMENT FOR ART EDUCATION

- Acme Shear Company, The 100 Hicks St., Bridgeport 1, Conn.
Adhesive Products Corp. 1660 Boone Ave., New York 60, N. Y.
Advance Crayon & Color Corp. 136 Middleton St., Brooklyn 6, N. Y.
Ahlbin, John & Sons, Inc. 188 Garden St., Bridgeport 5, Conn.
Alabastine Paint Products 2629 W. Grand Ave., Chicago 12, Ill.
American Art Clay Company 4717 West 16th St., Indianapolis 24, Ind.
American Crayon Co., The (Div. of Jos. Dixon Crucible Co.) 1706 Hayes Ave., Sandusky, Ohio
Anchor Dough P.O. Box 2056, Riverside, Calif.
Apple Tree Shop & Loom Room 4535 North River Rd., Freeland 3, Mich.
Arabol Mfg. Company, The 110 East 42nd St., New York 17, N. Y.
Arisco Associates 25 East Washington St., Chicago 2, Ill.
Art Crayon Company, Inc. 200 Fifth Ave., New York 19, N. Y.
Art in Leather 411 Joseph Ave., Rochester 5, N. Y.
Arts & Crafts Distributors, Inc. 9520 Baltimore Ave., College Park, Md.
Aurora Plastics Corp. 44 Cherry Valley Rd., West Hempstead, N. Y.
Avalon Manufacturing Co. 128 Middleton St., Brooklyn 6, N. Y.
- Bausch & Lomb Optical Company Rochester 2, N. Y.
Bee Paper Company, Inc. P.O. Box 1016, 100 8th St., Passaic, N. J.
Bemis-Jason Corp. Bay Road at Douglas Ave., Redwood City, Calif.
Bergen Arts and Crafts, Inc. 300 S.W. 17th Ave., Miami, Fla.
Berglund, Hilma 1171 No. Snelling Ave., St. Paul 13, Minn.
Bergman Looms Rt. 1, Box 185, Poulsbo, Wash.
Beseler, Chas. Company, The 219 South 18th St., East Orange, N. J.
Binney & Smith, Inc. 380 Madison Ave., New York 17, N. Y.
Bradley, Milton Company 74 Park St., Springfield 2, Mass.
Braquette, Inc. Lenox, Mass.
Bro-Dart Industries 59 E. Alpine St., Newark 5, N. J.
Brooks Mfg. Company 1514 Aster Place, Cincinnati 24, Ohio
Carter's Ink Company, The 239 First St., Cambridge 42, Mass.
Ceramichrome Laboratories 2111 West Slauson Ave., Los Angeles 47, Calif.
Coats & Clark, Inc., Dept. D-6 430 Park Ave., New York 22, N. Y.
Commercial Paste Company, The 504-520 Buttlers Ave., Columbus 8, Ohio
Craftint Mfg. Company, The 1615 Collamer Ave., Cleveland 10, Ohio
Craftools, Inc. 396 Broadway, New York 13, N. Y.
Creek Turn Route 38, Hainesport, N. J.
Cushman & Denison Mfg. Company 730 Garden St., Carlstadt, N. J.
- Delkote, Inc. 1419 Faulk Rd., Wilmington 99, Del.
Delta Brush Mfg. Corp. 119 Blecker St., New York 12, N. Y.
Dennison Mfg. Company 300 Howard St., Framingham, Mass.
Desks of America, Inc. P.O. Box 6185, Bridgeport 6, Conn.
Dixon, William, Inc. 32-42 East Kinney St., Newark 1, N. J.
Drakenfeld, B. F. & Co., Inc. 45 Park Place, New York 7, N. Y.
Dremel Mfg. Company 2420 18th St., Racine, Wisc.
Duro Metal Products Company 2651 N. Kildare Ave., Chicago 39, Ill.
- Eagle Pencil Company Danbury, Conn.
Easel Seat 9 St. James Place, Glen Cove, N. Y.
Educational Equipment Company 69 W. 23rd St., New York 10, N. Y.
Electric Hotpack Company, Inc. 5053 Cottman Ave., Philadelphia 35, Pa.
Esterbrook Pen Company, The Delaware & Cooper Sts., Camden 1, N. J.
Faber, Eberhard Pencil Company Crestwood, Wilkes-Barre, Pa.
Floquil Products, Inc. Cobleskill, N. Y.
- Garrett Tubular Products, Inc. P.O. Box 237, Garrett, Ind.
Gemexco, Inc. 2 Columbus Circle, New York 19, N. Y.
Grumbacher, M. Inc. 472 West 34th St., New York 1, N. Y.
- Hamilton Mfg. Company Two Rivers, Wisc.
Handcrafters, The Waupun, Wisc.
Harrop Ceramic Service Company 3470 E. Fifth Ave., Columbus 19, Ohio
Hercules Chemical Co., Inc. 416 Broadway, New York 13, N. Y.
Hermann Oak Leather Company 4050 North First St., St. Louis 7, Mo.
Higgins Ink Co., Inc. 271 Ninth St., Brooklyn 15, N. Y.
Hobby Mfg. Company 12831 Lyndon, Detroit 27, Mich.
Hommel, O. Company P.O. Box 475, Pittsburgh 30, Pa.
Hunt, C. Howard Pen Company 7th and State Sts., Camden 1, N. J.
- Iddings Paint Co., Inc.** 4503 38th St., Long Island City 1, N. Y.
Branches: 3486 Union Pacific Ave., Los Angeles 23, Calif.
609 W. Lake St., Chicago 6, Ill.
Immerman & Sons 2185 East 14th St., Cleveland 15, Ohio
International Crafts, Inc. 325 West Huron, Chicago 10, Ill.
- Java Latex & Chemical Corp. 1713 West Farms Rd., New York 60, N. Y.
Klopfenstein, H. B. and Sons Route 2, Crestline, Ohio
- Lamp Products** P.O. Box 34, Elma, N. Y.
J. C. Larson Company 820 So. Tripp Ave., Chicago 24, Ill.
Laszlo Universal Hand Press Company Stockton, N. J.
Lawler Chemicals, Inc. 3550 Touhy Ave., Chicago 45, Ill.
Lewis Fabrics 21 Daniels St., Milford, Conn.
Lily Mills Company Shelby, N. C.
- MacPherson Leather Company 140 So. Main St., Los Angeles 12, Calif.
Marsh Stencil Company (Felt-Point Pen Div.) Belleville, Ill.
Minnesota Mining & Mfg. Company 900 Bush Ave., St. Paul 6, Minn.
Montgomery Studio R.D. 4, West Chester, Pa.
Murphy, R. Co., Inc. 13 Groton Rd., Ayer, Mass.
Museum Pieces, Inc. 15 West 27th St., New York 1, N. Y.
- National Aircraft Supply Co. 10604 Euclid Ave., Cleveland 6, Ohio
National Card, Mat & Board Company 11422 South Broadway, Los Angeles 61, Calif.
Naz-Dar Company 461 Milwaukee Ave., Chicago 10, Ill.
Norman Ceramics Company, Inc. 225 Mamaroneck Ave., Mamaroneck, N. Y.
Nu Media Faribault, Minn.
- O-P Craft Co., Inc., The** Sandusky, Ohio
Oriental Rug Company 215 South Union St., Lima, Ohio
- Palmer Show Card Paint Co. 2000 Stephenson Highway, Troy, Mich.
Permanent Pigments, Inc. 2700 Highland Ave., Norwood 12, Ohio
Polymer Chemical Company 5920 Carthage Ave., Cincinnati 12, Ohio
Polymer Tempera, Inc. 17 Hawkins St., Somerville 43, Mass.
Radiant Color Company 830 Isabella St., Oakland 7, Calif.
Research Products Corp. 1015 E. Washington Ave., Madison 10, Wisc.
Rich Art Color Company, Inc. 31 West 21st St., New York 10, N. Y.
- Rovin Ceramics 7456 Fenton St., Dearborn, Mich.
- S & S Leather Company** Colchester, Conn.
St. Louis Crafts, Inc. 15 W. Moody Ave., St. Louis 19, Mo.
Sanford Ink Company 2740 Washington Blvd., Bellwood, Ill.
School Equipment Mfg. Corp. 46 Bridge St., Nashua, N. H.
Schrader Instrument Company East Main St., Independence, Iowa
Sheldon, E. H. Equipment Company Muskegon, Mich.
Slacum, Heidi Company, Inc. 95 Chambers St., New York 8, N. Y.
Soriano Ceramics, Inc. 20-21 Steinway St., Long Island City 5, N. Y.
Soodery Products, Inc. 91-31 121st St., Richmond Hill 18, N. Y.
Stanley Tools New Britain, Conn.
Stewart Clay Co., Inc. 133 Mulberry St., New York 13, N. Y.
Strathmore Paper Company West Springfield, Mass.
- Talens & Son, Inc.** P.O. Box 453, Union, N. J.
Tandy Leather Company 300 Throckmorton, Fort Worth, Texas
Tauber Plastics, Inc. 200 Hudson St., New York 13, N. Y.
Technical Furniture, Inc. Statesville, N. C.
Tepping Studio Supply Co. 3517 Riverside Dr., Dayton 5, Ohio
Testor Corporation, The Rockford, Ill.
Thayer & Chandler 910 W. Van Buren St., Chicago 7, Ill.
Thompson, Thomas C. Company 1539 Deerfield Rd., Highland Park, Ill.
Touch-O-Magic P.O. Box 6362, Cleveland, Ohio
- Ultra Violet Products, Inc. 5114 Walnut Grove Ave., San Gabriel, Calif.
Union Rubber & Asbestos Company P.O. Box 1040, Trenton 6, N. J.
Utrecht Linens 119 West 57th St., New York 19, N. Y.
- Venus Pen and Pencil Corporation** Lewisburg, Tenn.
Vitro Mfg. Company 60 Greenway Dr., Pittsburgh 4, Pa.
- Walco Bead Company 37 West 37th St., New York 18, N. Y.
Weber, F. Company 1220 Buttonwood St., Philadelphia 23, Pa.
Weber Costello Co. 12th & McKinley Sts., Chicago Heights, Ill.
Western Ceramics Supply Co. 1601 Howard St., San Francisco 3, Calif.
Wilhold Products Company (Div. of Acorn Adhesive Co.) 678 Clover St., Los Angeles 31, Calif.
Winsor & Newton, Inc. 902 Broadway, New York 10, N. Y.
Wold Air Brush Company 2171 No. California, Chicago 47, Ill.
Wolfe, Jack D. Co., Inc. 62 Horatio St., New York 14, N. Y.
Wonderwood Mfg. Company 817 So. Victory Blvd., Burbank, Calif.

SCHOOL SUPPLIES AND CRAFTS SUPPLIES

Listed below are concerns ready to supply you with a wide variety of school supplies and items for crafts. Following the names are the principal regions in which the companies operate (either by personal calls or by mail), and the symbols in parentheses indicate their main types of business—school supplies, items for crafts or both. Names in **BOLDFACE** type are advertisers in this issue. **Catalogs and descriptive folders are available from most of these concerns, and usually at no cost to those who request them on school stationery.**

Symbols:
(c) craft dealers
(s) school supplies dealers

NAME	REGION AND TYPE OF BUSINESS
A-1 Craft Products Company, 11447 So. Michigan Ave., Chicago 28, Ill.	Midwest (c)
Apple Tree Shop & Loom Room, 4535 No. River Rd., Freeland 3, Mich.	National (c)
Art Handicrafts Company, 194 William St., New York 38, N. Y.	National (c, s)
Art in Leather, 411 Joseph Ave., Rochester 5, N. Y.	National (c)
Arts & Crafts Distributors, Inc., 9520 Baltimore Ave., College Park, Md.	National (c); Md., D.C., Va., Del., N.J., Pa., N.Y., W.Va. (s)
Barry, John J. Company, P.O. Box 15, Detroit 31, Mich.	National (c)
Beissinger, Ernest W., 417 Clark Bldg., Pittsburgh 23, Pa.	National (c)
Bergen Arts and Crafts, Inc., 300 S.W. 17th Ave., Miami, Fla.	National (c, s)
Bergman Looms, Rt. 1, Box 185, Poulsbo, Wash.	National (c)
Bersted's Hobby Craft, Inc., Box 497, Monmouth, Ill.	National and Canada (c, s)
Bingler, Chas. F. Sons, Inc., 498 Sixth Ave., New York 11, N. Y.	N.Y., Del., Fla., Tex., Mo., Ohio, Pa., Calif. (c)
Brush & Palette Shop, 425 Walt Whitman Rd., Huntington Station, N. Y.	Long Island (c); National (mail)
Cleveland Crafts Company, 4707 Euclid Ave., Cleveland 3, Ohio	National (c)
Container Corporation, 38 So. Dearborn, Chicago, Ill.	National (c, s)
Craft Service, 337 University Ave., Rochester 7, N. Y.	National (c)
Craft Service Supply, 6431 Perry St., St. Louis 20, Mo.	National (c)
Crafters of Pine Dunes, P.O. Box 136, Cascade, Wisc.	National (c)
Craftint Mfg. Company, The, 1615 Collamer Ave., Cleveland 10, Ohio	National (s)
Craftools, Inc., 396 Broadway, New York 13, N. Y.	National (c, s)
Craftsman Supply House, Scottsville, N. Y.	National (c)
Craftsman Wood Service Company, 2727 Mary St., Chicago 8, Ill.	National and Canada (c)
Creek Turn, Route 38, Hainesport, N. J.	National, plus Alaska, Hawaii, West Indies (c)
Curio House, Box 514, Westwood 47, N. J.	National (c)
Dennison Manufacturing Company, 300 Howard St., Framingham, Mass.	National (s)
Diamond Ink & Adhesive Company, 216 So. Second St., Milwaukee 4, Wisc.	National (c)
Dwinnell Art & Craft Supply, 2312 National Rd., Wheeling, W. Va.	National (c)
Educational Equipment Company, 69 W. 23rd St., New York 10, N. Y.	National (s)
Friedman, A. I. Inc., 25 West 45th St., New York 36, N. Y.	National (c, s)
Graphic Chemical & Ink Company, 714 No. Ardmore Ave., Villa Park, Ill.	National (c, s)
Griffin Craft Supplies, 5626 Telegraph Ave., Oakland 9, Calif.	West of Mississippi (c)
Hagstox, T. B. & Son, 709 Sansom St., Philadelphia 6, Pa.	National (c, s)
Hammett, J. L. Company, Kendall Square, Cambridge 42, Mass.	New England States, N.Y., N.J., Del., Pa., Va. (c, s)
Branches: 2393 Vaux Hall Rd., Union, N. J. and 165 Water St., Lyons, N. Y.	
Handcrafters, The, Waupun, Wisc.	National (c)
Hill, C. R. Company, 35 W. Grand River, Detroit 26, Mich.	National (c)
House of Wood & Crafts, 3408 No. Halton St., Milwaukee, Wisc.	National (c, s)
International Crafts, Inc., 323 W. Huron, Chicago 10, Ill.	National (c)
Jewelry Craftsman Company (Div. of Newall Mfg. Co.), 139 No. Wabash Ave., Chicago 2, Ill.	National (c)
Kramer, Sam, 29 West 8th St., New York 11, N. Y.	National (c)
J. C. Larson Company, 820 So. Tripp Ave., Chicago 24, Ill.	National (c)
Lewis Artist Supply Company, 6408 Woodward, Detroit 2, Mich.	National (s)
Mitchell Steven Hobbycraft Company, 197 Evergreen Dr., Westbury, L. I., N. Y.	National (c)
National Handicraft Co., Inc., 199 William St., New York 7, N. Y.	National (c, s)
Nobema Products Corp., 141 Greene St., New York 12, N. Y.	National (c, s)
Oriental Rug Company, 215 So. Union St., Lima, Ohio	National (s)
Philadelphia Art Supply Company, 25 So. 8th St., Philadelphia 6, Pa.	Pa., N.J., Del., Md. (c, s)
Practical Drawing Company, P.O. Box 5386, Dallas 22, Texas	Southwestern States (c, s)
Rich Art Color Company, Inc., 31 West 21st St., New York 10, N. Y.	National (s)
Rosenthal, Robert, Inc., 840 Broadway, New York 3, N. Y.	National (c)
Sax-Crafts (Div. of Sax Bros., Inc.), 1103 No. 3rd St., Milwaukee 3, Wisc.	National (c, s)
School Products Company, 330 East 23rd St., New York 10, N. Y.	National (c)
Stewart Clay Co., Inc., 133 Mulberry St., New York 13, N. Y.	National (c, s)
Talia Mosaic Tile Company, 3323 Sunset Blvd., Los Angeles 26, Calif.	Western States (c)
Tandy Leather Company, 300 Throckmorton, Fort Worth, Texas	National (c)
Tepping Studio Supply Company, 3517 Riverside Dr., Dayton 3, Ohio	National (c, s)
Thompson, Thomas C. Company, 1539 Deerfield Rd., Highland Park, Ill.	National (c)
Utrecht Linens, 119 West 57th St., New York 19, N. Y.	National (s)
Van Howe Ceramic Supply Company, 1238 So. Broadway, Denver 10, Colo.	National (c, s)
Veteran Leather Company, 196 William St., New York 38, N. Y.	National (c)
Wolfe, Jack D. Co., Inc., 62 Horatio St., New York 14, N. Y.	National (c)
Woodland Ceramic Studio, 3800 Highland Ave., Downers Grove, Ill.	Ill., Wisc., Ind. (c)

OTHER SERVICES FOR TEACHERS

Listed below are sources for a variety of items and services of interest and help to art teachers. Names in **BOLDFACE** type are advertisers in this issue. *Catalogs and descriptive folders are available from most of these concerns, and usually at no cost to those who request them on school stationery.*

ART INSTRUCTION

Akron Art Institute, The 69 East Market St., Akron 8, Ohio
 Art Instruction, Inc. 500 South 4th St., Minneapolis 15, Minn. (by correspondence)
Boston Museum School 230 The Fenway, Boston, Mass.
 Colorado College Colorado Springs, Colo.
 Institute of Design
 Illinois Institute of Technology, Technology Center, Chicago 16, Ill.
 International School of Art 33 East 42nd St., New York 17, N. Y.
Moore Institute of Art 1328 No. Broad and Master Sts., Philadelphia 21, Pa.
 New York-Phoenix School of Design 160 Lexington Ave., New York 16, N. Y.
 Pennsylvania State University, Dean of Summer Sessions 101 Willard Bldg., University Park, Pa.
 Ringling School of Art Sarasota, Fla.
 Study Abroad, Inc. 250 West 57th St., New York 19, N. Y.

BOOKS: ART METHODS AND APPRECIATION

Art Activities Almanac Wayne University Press, Detroit 2, Mich.
 Blenis Publishing Company New Madison, Ohio
 Bruce Publishing Company, The 500 No. Broadway, Milwaukee 1, Wisc.
Ceramic Enterprises 322 Riverbank, Wyandotte, Mich.
Davis Publications, Inc. 192 Printers Bldg., Worcester 8, Mass.
 Harcourt, Brace and Company 750 Third Ave., New York 17, N. Y.
 Hastings House Publishers, Inc. 151 East 50th St., New York 22, N. Y.
 International Textbook Company Scranton 15, Pa.
 Lane Publishing Company Menlo Park, Calif.
 Lippincott, J. B. Company East Washington Sq., Philadelphia 5, Pa.
 Macmillan Company, The 60 Fifth Ave., New York 11, N. Y.
 McGraw-Hill Book Co., Inc. 330 West 42nd St., New York 36, N. Y.
 McKnight & McKnight Publishing Company Bloomington, Ill.
 Oxford University Press, Inc. 417 Fifth Ave., New York 16, N. Y.
 Skira, Inc. Publishers 381 Fourth Ave., New York 16, N. Y.
 University of California Press Berkeley 4, Calif.
 University of Chicago Press 5750 Ellis Ave., Chicago 37, Ill.

University of Illinois Press Urbana, Ill.
 University of Nebraska Press Administration Bldg. 111, Lincoln 8, Neb.
 World Book Company Yonkers-on-Hudson, N. Y.
 World Publishing Company 119 West 57th St., New York 19, N. Y.

FILMS, SLIDES AND FILMSLIDES

American Library Color Slide Company 222 West 23rd Street, New York 11, N. Y.
 Bailey Films, Inc. 6509 DeLongpre Ave., Hollywood 28, Calif.
Beseler, Chas. Company, The 219 So. 18th St., East Orange, N. J.
 Bray Studios, Inc. 729 7th Ave., New York 19, N. Y.
 Contemporary Films, Inc. 267 West 25th St., New York 1, N. Y.
 Coronet Films Coronet Building, Chicago 1, Ill.
 Huckleberry Workshop Route 2, Hendersonville, N. C.
 Modern Enterprises 6300 Fulton Ave., Van Nuys, Calif.
 Pictura Films Distribution Corp. 41 Union Square, West, New York 3, N. Y.
 Society for Visual Education, Inc. 1345 Diversey Pkwy., Chicago 41, Ill.
 Tabletopper Productions P.O. Box 706, 111 East 6th St., Carson City, Nev.

PRINTS

Artex Prints, Inc. Westport, Conn.
 Colonial Art Company 1336-1338 N.W. First St., Oklahoma City 4, Okla.
 Comerford Gallery 117 East 57th St., New York 22, N. Y.
 Lee, Robert Gallery, The Newtown, Conn.
 University Prints 15 Brattle St., Harvard Sq., Cambridge 38, Mass.

TRADE ASSOCIATION

Crayon, Water Color & Craft Institute, The
 420 Lexington Ave., New York 17, N. Y.

TRAVEL SERVICES

British & Irish Railways 9 Rockefeller Plaza, New York 20, N. Y.
 United Air Lines 5959 So. Cicero Ave., Chicago 38, Ill.



**NOW!
ONE
PRODUCT
DOES THE
WORK
OF TEN!**

Gothic All-Purpose Powder Tempera answers your arts and crafts needs at remarkably low cost

No longer do you have to buy a special paint for each different project. With just one basic color material, Gothic All-Purpose Powder Tempera, you can do: Poster Painting, Finger Painting, Block Printing, Textile Painting, Oil Painting, Spatter Cast, Gesso, Clay Decorating, Woodenware Decorating, and Glass Decorating. You and your students will be delighted with the results, thanks to the richer tones of

Gothic All-Purpose Powder Tempera.

The 14 colors come in 16-ounce canisters which are easily stacked and stored. List Price: 85¢ per canister. Made by Sargent, color specialists for schools and artists for 37 years. Why not try Gothic All-Purpose Powder Tempera in your classroom. In the last three years, 2½ million canisters have been used in American schools. Order from your school-supply distributor.

Sargent **FREE**
 illustrated booklet

American Artists' Color Works, Inc., 200 Fifth Ave., N. Y. 10, N. Y.
 Clear and precise instructions on how to use Gothic All-Purpose Powder Tempera. Mail this coupon today for your free copy.

Name.....
 School.....
 Address.....
 City..... Zone..... State.....



picked by professionals

Reach for a Venus drawing pencil and get the sharper, clearer line (in all 17 degrees of hardness) your work demands. Venus homogenized lead holds a needle point longer, insures uniform smoothness, perfect smudge-free work. Pressure proofing seals the lead to the wood along its full length so the Venus is stronger. Prove Venus superiority for yourself. Send for the educational brochure "Atomic Energy and You" and get a FREE Venus Drawing Pencil.

VENUS[®]

drawing pencils

VENUS PEN & PENCIL CORPORATION, HOBOKEN, N. J.

ITEMS OF INTEREST

Ink Sketching A helpful folder from Higgins Ink Company describes and illustrates ways of using pen and ink in sketching. It suggests papers to use, types of pens and brushes, gives hints on combining pen lines to form tones, and other information the beginner will find most helpful. In addition, there are illustrations of results obtained from a variety of pen strokes and brush strokes. For your free copy of this folder, please write Higgins Ink Company, 271 Ninth St., Brooklyn 15, N. Y. and ask for Ink Sketching.

Art Supplies A new edition of the Milton Bradley Company catalog has recently been published and is yours for the asking. In it are described, illustrated and priced the complete line of coloring materials, construction paper, modeling clay, brushes, chalk, and other quality art materials and accessories manufactured by this long established company. In addition, you'll find sections on art furniture, kindergarten materials, arithmetic and reading aids, and games. For your free copy of this helpful reference and ordering catalog, please write Milton Bradley Company, Advertising Dept., 74 Park St., Springfield, Mass., and ask for Catalog E98.

Brushes for Ceramics A booklet offered at no cost by Delta Brush Company gives much helpful information on the selection, use and care of brushes used in ceramics. Written by Carol Janeway, author of the book, "Ceramics and Pottery Making for Everyone," and an authority on functional design and artistic expression in pottery, you'll find this fully illustrated booklet offers a variety of methods for decorating pottery: lettering, fine lines, dry brush, stippling, highlights, waves and grains, dusting, glazing and others. In addition, the types of brushes and Delta style numbers are given for each method, as well as hints on cleaning, storage and salvage of brushes. For your free copy of this methods and ordering guide, simply write Delta Brush Mfg. Corp., 120 South Columbus Ave., Mount Vernon, N. Y. and ask for Ceramic Brushes.

Visual Aids Many of you know Dr. Konrad Prothmann, for he is a familiar figure at the regional and national conventions held by art educators. His catalog, entitled Visual Aids for Art Education, is available to you at no cost and it gives details of his latest four groups of color slides, entitled Child Art in the U.S.A., as well as a wide range of other subjects of interest to art teachers. For your free copy of this catalog, please write Dr. Prothmann at 2378 Soper Ave., Baldwin, L. I., N. Y.



No Wonder Students do Better with Alphacolor Pastels!

- Every stick is firmly extruded (Not molded)—less breakage no mess and waste
- A perfect sequence of distinctive—smooth working colors — 48 in all
- Uniform structure throughout — no gritty spots — Splendid coverage
- Assortment at 12, 24 or 48 colors—and boxes of any one color
- Award winning box is shown below—it has a convenient plastic work tray.



Send for the complete
Alphacolor Story!

WEBER COSTELLO COMPANY
CHICAGO HEIGHTS, ILLINOIS
MANUFACTURERS OF: CHALKBOARD, CHALK,
ERASERS, ART MATERIALS, MAPS, GLOBES.

*it was done
with*
HIGGINS
INK

The lively, light grace of Richard E. Priest's pen-and-ink style creates a delightful atmosphere of humor and gaiety. His expressive lines leap to life in action, and his easy delineation captures the sparkling spirit of subject and situation.

His ideal of perfection is further reflected in his comment about the ink upon which he depends: "Higgins is perfect for my exacting work!"



By courtesy of the artist

The basic art medium

At art and stationery dealers everywhere.

Since 1880

HIGGINS INK CO., INC. BROOKLYN, NEW YORK



NEW... A FLEX FLO DISPENSER
MAKES TEMPERA A PLEASURE TO USE.

A dispenser to store and pour liquid tempera paint or a shaker and dispenser for powder tempera.

Translucent plastic shows color content. Large 12 oz. dispenser has wide opening for easy refilling. Packaged 12 to a set for all your colors.

Eliminates dried up paint, sticking jar lids, glass breakage and excess waste. Perfect for art rooms and elementary classrooms.



Order from J. L. Hammitt Co.

Lyons, N.Y.; Union, N. J.; Cambridge, Mass.

or direct from:

LAMP PRODUCTS, P.O. Box 34, Elma, N.Y.

12 Dispensers per set \$7.20 postpaid

FOB orders must be accompanied by authorized school purchase order.

FLEX FLO DISPENSERS ARE PERFECT FOR SUMMER YOUTH AND CRAFT PROGRAMS

Brilliant Colors!



IN 4X1" TUBES



→ **AQUAPRINT**
WATER-SOLUBLE
PRINTING INK

Made with genuine Artists' Pigment

The strong, bright colors of Weber Aquaprint Inks dry with a satiny-smooth finish. They are easily washed, with water, from implements, clothing and hands . . . and they leave no stain.

Weber Aquaprint Inks are available in the following colors:

Red	Magenta	Green
Purple	Yellow	White
Orange	Brown	Black
Turquoise (Light Blue)		Dark Blue

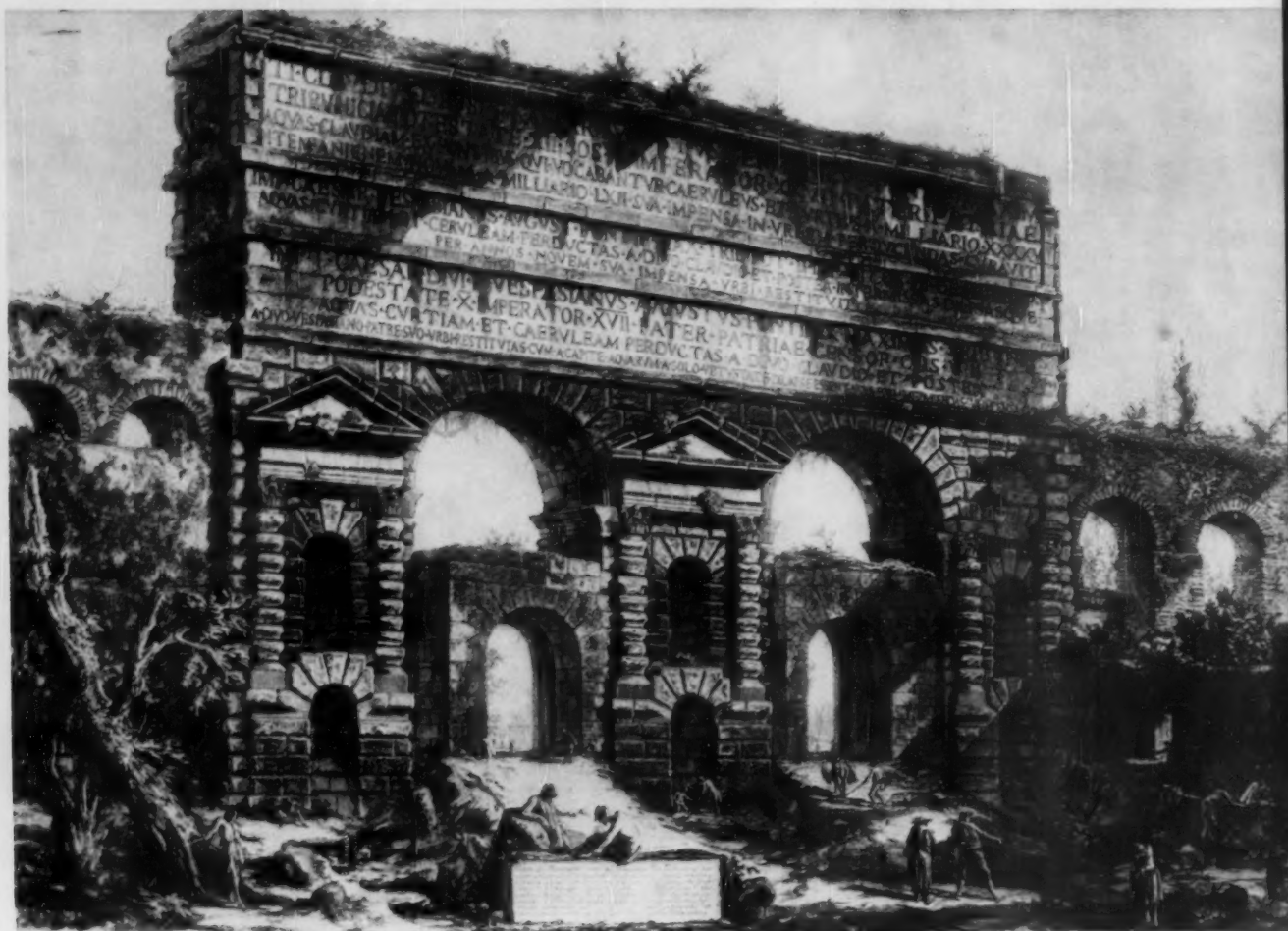
**WEBER WHITE SURFACE
LINOLEUM BLOCKS**

Highest quality linoleum mounted on 5-ply wood block with a white surface as easy to draw on as paper. In all popular sizes from 2x3" to 9x12".

F. WEBER CO.

Manufacturing Artists' Colormen Since 1853
PHILADELPHIA 23, PA.
St. Louis 1, Mo.

Patronize Your Nearest Weber Dealer or School Supply Distributor



COLLECTION OF THE AUTHOR

Foreigners who had been introduced to Rome through the etchings of Piranesi often found an actual visit to be an anticlimax.

PIRANESI, POET OF THE GRANDIOSE

An eighteenth-century Italian glorified the ancient ruins of Rome, recreating them in his imagination. Roman in detail, and convincing in execution, these etchings told of fabulous cities in poetic grandeur.

Evarts Erickson

Let anyone mention etching and great etchers and we think almost immediately of Rembrandt. Yet there is someone else who worked in that medium whose name should be equally familiar. He was an eighteenth-century Italian named Giovanni Battista Piranesi and he was one of the greatest etchers who ever lived. He was also something of a mono-

maniac, an eccentric, and even a fanatic. To Piranesi, almost the only things that mattered in life were the ruins of ancient Rome. His waking hours, he spent surveying them, inspecting them, digging them up, reconstructing them, sketching them, and glorifying them in the unique poetry of his etchings. Asleep, he dreamed of fabulous cities,

Roman in detail and in all their outward aspects but actually imaginary—cities that could only have existed in the brain of someone obsessed by a dream of impossible grandeur. It is said that Piranesi once remarked to a student: "It is a basic necessity for me to think in terms of great ideas, and if anyone asked me to plan a new universe, I would be crazy enough to say 'yes.'"

Curiously enough, Piranesi became an artist almost by default. Born in 1720 near Venice, he had been trained as an architect—but no one would give him any commissions! To whip up interest in his work, Piranesi borrowed money to publish a book of his architectural projects. His etchings of imaginary buildings revealed a grandiose frame of mind, but did not bring clients. A failure as an architect, he dabbled in stage design for a while; then, when only twenty-two, he published another book of fourteen large etchings depicting what he called *Imaginary Prisons*. Perhaps they were a souvenir of the atrocious public tortures which were commonplace then. Or perhaps they reflected the frustration the talented young architect felt at being cooped up in Venice with no prospects before him. The setting is so solidly realized that these imaginary prisons might exist. But the architecture is superhuman—almost beyond the wildest flights of fancy.

There is a multiplication of galleries and arcades, of enormous stairways leading to endless passageways, of cyclopean pillars supporting herculean vaults, buttresses and ramparts, ponderous pendant chains and obscure instruments of horror glimpsed uncertainly through a smoky miasma of flickering shadow. And always the eyes of the observer is led up, up, up. Baroque art, too, had involved the eyes of the spectator upward and used the same willful perspective to induce a sense of drama and movement in space, but there is an imaginative and sombre majesty in these etchings that was original with Piranesi.

Although we now recognize the *Prisons* as masterpieces, in their own day they went unnoticed. The artist's future was uncertain until he took a job as a printseller's agent in Rome. Soon after he arrived there he had an inspiration that changed his life. "When I saw how most of the remains of ancient buildings lay scattered through gardens and ploughed fields where they dwindled day by day, either weathering away, or being quarried into to steal fragments for new buildings, I resolved to preserve them by means of engravings."

The subject matter was hardly novel. Other artists had portrayed these ruins but in a way that was mostly illustrative and documentary. What distinguished the work of Piranesi was that his moody genius and imaginative enthusiasm—not to say monomania—produced a distinct and individual vision. In a way the Rome he now began to depict did not really exist outside his own imagination. True, the ruins were there—but they were not so heroic, nor so suffused with poetic feeling. Yet it is difficult for us now to realize the shattering impact these etchings had on their time. As print rapidly succeeded print, contemporaries marveled that this

master craftsman could handle the abstruse copperplate with such painterly finesse. On foreigners especially the effect was almost overwhelming. Never having seen Rome, they could only conceive of it in terms of Piranesi—and an actual visit to that city often proved anti-climatic!

Like Piranesi's *Prisons*, his ruins often strike us as so many stage settings. They are never depicted frontally. Almost always, they are rendered from an unusual—perhaps even impossible—vantage point. Sometimes it seems as if the artist is hanging from the air in a basket, at other times as if he were groveling on his stomach with his face a bare few feet from his subject, yet with an eye that encompasses all. In the foreground, puppetlike figures, hardly more than scarecrows, gesticulate with an empty-minded wildness. Their reduced scale gives a further effect of grandeur and decay, and seems to imply that Rome was built by a race of giants who have utterly vanished from the earth—and this was the way Piranesi felt about it.

Although he obstinately called himself an architect for years, Piranesi worked on his prints until his early death in 1778 (he had refused medical assistance because it would take time from his precious work). By then, he had published the incredible total of over a thousand plates—not only of Roman ruins, but also of antique artifacts, and designs for modern dwellings that incorporated classic elements. Years later, these designs helped form the Empire Style in interior decoration, just as his grandiose buildings created a new feeling for monumentality in architecture. But perhaps the ultimate compliment that could be paid to his

understanding art

eccentric genius was made by foreigners who complained that even the grandeur of the city that had once been Capital of the World, shrank into insignificance after they had seen the prints of Piranesi.

Evarts Erickson, writer and critic, studied art at Columbia University and the University of Paris. Readers interested in learning more about this artist are referred to the book, "Giovanni Battista Piranesi," by A. Hyatt Major, curator of prints at the Metropolitan Museum of Art. It was published by H. Bittner and Company, New York. Writers contributing to this feature are endeavoring to present significant art of various times and places, representing major movements and influences. If you have any suggestions or comments, please send them to the editorial office, Buffalo, New York.

RAINBOW-BRILLIANT WATERCOLORS



the all-new, inexpensive felt-tipped **BRITE-LINE MARKER** designed especially for teachers and students of the graphic arts

Neat - Compact - Precision-Made

If you work in watercolors, you have a totally new and rewarding experience in store with this unique Brite-line Marker. Factory-filled with water-based inks in your choice of **EIGHT DAZZLING COLORS**, red, blue, green, yellow, orange, purple, brown and black, Brite-line Marker is ready for immediate use—ideal for on-the-spot sketching, classroom instruction, finished works of art.

Special-formula inks • do not penetrate paper or transfer to other surfaces • are easily removed with ink eradicator or bleach • are very fast drying and practically odorless.

CUSHMAN & DENISON

Manufacturing Company, Carlstadt, New Jersey

Please send complete descriptive literature in full color on Brite-line Marker, and latest edition of the Flo-master Art Bulletin. SA-2

Name _____

Address _____

City _____ Zone _____ State _____

Full-color
art kits
fit your pocket
and purse



Color Kit of eight Brite-line Markers (one of each color) packed in beautiful crystal clear jewel case — **\$5.95**

Color Kit of four Brite-line Markers (one each red, blue, green and black) in handy pocket package with easel back — **\$2.98**

Brite-line Markers are also available singly, your choice of color — **75¢**. Refills — **40¢**.

By the makers of the incomparable Flo-master Felt Tip Pen. At all leading stationery, art and school supply stores.

FREE CATALOG



NEW . . . for Enamelers . . . Ceramists . . . Glass Decorators!

Enamel Powder
Paasche
Spraying Equipment
Dremel Power Tools
L & L Kilns
Enameled Steel Tiles
Findings and Chain
Hotpak Kilns
Glass Ice Colors
Enameling
Accessories

Select your needs at leisure from our new, fully-illustrated catalog. We offer a full line . . . a single source . . . low prices . . . fast shipment. Mail coupon today for your free catalog!

Thomas C. Thompson Co.
Dept. SA—1539 Deerfield Road
Highland Park, Illinois

THOMAS C. THOMPSON CO.
Dept. SA—1539 Deerfield Rd., Highland Park, Illinois

Please rush your **FREE CATALOG** of enamels and enameling supplies.

Name _____

Address _____

City _____ Zone _____ State _____



4 classroom Art projects in one New mural kit ^{only} \$1.00

This unusual offer is made to introduce you to the outstanding quality of **Color Craft Crayons** . . . and to help you learn first hand why they are rapidly becoming so popular in schools all over the country.

Leading educators agree that art projects are invaluable in developing a sense of social behavior in children as well as providing an opportunity for them to use their creative imagination, ability and talents.

This ideal teacher's aid mural kit contains **24 Color Craft Hexagon non-roll Crayons** — 4 sheets of heavy mural paper, each 36" x 48" and instructions.

Color Craft Crayons have been developed with emphasis on texture, brilliance and permanence. The hexagon shape provides a firm yet comfortably relaxed grip. All **Color Craft Crayons** carry the Parents' Magazine seal of commendation as well as a non-toxic seal, for positive assurance that they carry no harmful ingredients.

Send for Mural Kit today and give your students a wonderful change in pace from their regular school work.

Advance Crayon and Color Corp.
136 Middleton St., B'klyn 6, N. Y.

ITEMS OF INTEREST *Continued*

Lettering Help Offered at no cost to School Arts' readers by Esterbrook Pen Company is a series of sheets giving a variety of suggestions for using the lettering pen. There are examples of alphabets in a variety of letter styles, illustrations of strokes, recommended suggestions for monograms and border designs, illustrations of effects resulting from using various pen shapes (nibs), and interesting background help and information for teachers on the history of the drawing pen and how it may be used as a creative art medium. For your free set of these helpful sheets, simply write Items of Interest Editor, School Arts, 192 Printers Building, Worcester 8, Mass., and ask for the Esterbrook Pen material.

New Casting Clay The latest product developed by American Art Clay Company has been placed on the market under the trade name Amaco Stoneware Casting Clay No. 46. It is composed of finely ground natural colored clays with the correct amount of deflocculant. In liquid form the clay is ready to be poured into plaster molds, and in dry form only water need be added. The slip casts easily and drains well; greenware is fine textured and smooth. Low bisque firing with a glaze fire at Cone 4 (2174°F.) is suggested. Other clays, glazes, ceramic supplies and equipment are listed in the 56-page Catalog No. 44, Amaco Pottery and Metal Enameling Supplies and Equipment. It's free; write American Art Clay Company, Indianapolis 24, Ind. for your copy.

Art Study Abroad A folder giving details on the variety of summer art tours offered by Bureau of University Travel, 11 Boyd St., Newton, Mass., is yours for the asking. The Bureau is a nonprofit educational foundation and its prime purpose is the promotion of education through travel. Tour leaders are selected for their special knowledge of the fields covered in tours they lead. A number of the tours offered for this coming summer will be of special interest to art teachers. Please write the Bureau at the above address for details.

Ceramic Supplies A catalog offered at no cost by The O. Hommel Company gives you a complete reference and buying guide of material and equipment to meet your every need in ceramics. It begins with a statement, "To our customers," about the extensive facilities offered by this large and firmly established company and ends 58 pages later with an index of the contents. In between you'll find a complete range of glazes, colors, stains, clays, chemicals, kilns (gas and electric), tools, brushes, wheels, and accessories and other equipment. For your free copy of this buying guide of quality items for ceramics, please write the company at 209 Fourth Ave., Pittsburgh 30, Pa. and ask for Catalog No. 59.

Your best single source is

M. GRUMBACHER

when it
comes to
artists' material

More for your
budget allotment

Quality
at the right prices

write for school
brush catalog



472 West 34th St.
New York 1, N. Y.



**Complete
craft shop
for the
art
department**



DREMEL MOTO-SHOP
designed for classroom use



Foolproof blade guard makes it
safe for even lower elementary
grades. No exposed belts or pulleys.

Moto-Shop is the safest, most versatile power tool
ever developed for the art classroom. Actually it's
five tools in one — a jig saw with a power take-off
to which you connect a disc sander, bench grinder,
buffing wheel, and flexible shaft. You can cut wood,
plastic, metal; sand and drill; polish jewelry, engrave,
remove stilt marks, carve wood — and hundreds of
other jobs. Lightweight, portable. Can be set up right
in the class room. A professional power tool that will
stimulate creativity. Now used in hundreds of schools.

Model 571 Moto-Shop (Jig Saw with Disc Sander) - \$33.95

Model 572 Moto-Shop (with all attachments above) 49.95

Attachments, if purchased separately - - - 19.95

SEE YOUR POWER TOOL DEALER, or write for
FREE catalog and school testimonials.

DREMEL MFG. CO.

DEPT. 279B, RACINE, WISCONSIN

D-99

FREE



• Shapes • Jewelry Findings • Enamels (In shaker-top, unbreakable bottles)
• Kilns • Exclusive Imported Tools

THE JEWELRY CRAFTSMAN CO.
139 N. Wabash Ave. Chicago 2, Illinois

JUST OUT!

the latest 76-page

**CRAFTTOOLS
CATALOG**

of

Tools and Equipment
for the Creative Crafts

and set of

**CREATIVE CRAFTS
WALL CHARTS**

•

CERAMICS

JEWELRY • METAL CRAFT

GEM CUTTING

GRAPHIC ARTS

BOOKBINDING

SCULPTURE

Send for them now . . . They are Free!

CRAFTTOOLS, INC.

Dept. SA

396 Broadway

New York City 13



Let students use clays and glazes that
are made for each other. Here are a
few suggestions from the Drakenfeld
line. All are for Cone 06 fire.

Cone 06 White Casting Clay 68203

Just add water and adjust to
proper consistency.

Cone 06 White Plastic Clay 68204

Comes ready to use.

For sparkling results and minimum
danger of crazing, shivering, blistering,
pinholing and crawling, choose from
these Drakenfeld glazes:

Cone 06-04 Gloss (Majolica)

Cone 06-02 Vellum Matt

Cone 06-02 Matt

Cone 07-02 Crystalline

Cone 07-02 Crackle

Cone 07-02 Fancy Art

Write for catalog which includes details on
dry and liquid overglaze and underglaze
colors, front loading and top loading kilns,
wheels and pottery supplies.



Drakenfeld

B. F. DRAKENFELD & CO., INC.

45 Park Place • New York 7, N. Y.



**FELT TIP
MARK-
MASTER**

MARKMASTER I Plastic model, gravity
feed. No priming needed.

MARKMASTER II Metal model, valve
controlled.

COLORMASTER 8 assorted colors Dri-Ink
plus 8 Nibs and holders

INDISPENSABLE — ECONOMICAL

Write for circular

FLOQUIL Dept. SA-9, COBLESKILL, N.Y.

SAY YOU SAW IT IN SCHOOL ARTS.

VU-LYTE II fits everything

GEOGRAPHY



and everything fits the VU-LYTE II

Whatever the subject, use VU-LYTE II Opaque Projector to show big pictures on a screen or wall in black and white or full color. See how simply this fine teaching tool operates. Write now for a Free Demonstration. No obligation. And ask for the new illustrated brochure: "TURN TEACHING INTO LEARNING".

CHARLES Beseler COMPANY
EAST ORANGE, NEW JERSEY

World's Largest Manufacturer of Opaque and Overhead Projection Apparatus

ITEMS OF INTEREST *Continued*

Modeling Material A helpful 8-page folder offered by Delkote, Inc. gives many interesting uses for their material. Called Del-Form, it was developed as a modeling medium for use in elementary and secondary schools. The material requires only a few simple modeling tools and may be applied to armatures such as wire, wood, light bulbs, etc. It may also be used for modeling solid forms. Del-Form remains plastic while damp and is self-hardening at room temperature. When dry, it may be cut, carved, sanded and painted. For your copy of the folder, written by an art supervisor, giving examples of work in this medium and hints on how to use it, please write Items of Interest Editor, School Arts Magazine, 191 Printers Building, Worcester 8, Mass., and ask for the Del-Form folder.

Basic Methods Charts Craftools, Inc., 396 Broadway, New York 13, N. Y., has sent us a series of helpful wall charts that visually explain the basic methods of working in a variety of art media. The large charts, size 16 by 20 inches, are available at no cost to schools and institutions requesting them on their letterheads. Here are the subjects covered in the series of charts, now available: Basic process of Lithography, Basic Process of Etching, Basic Process of Wood Cuts and Wood Engraving, Basic Process of Linoleum Cutting, Basic Process of Throwing on the Potters Wheel, Basic Process of Bookbinding, Basic Process of Sculpture, Cleaning the Shop. For your free set of charts, please write on your school letterhead to Craftools, Inc.



New Package Advance Crayon & Color Corp., 136 Middleton St., Brooklyn 6, N. Y., has introduced a new "64" package to their line of Color Craft Crayons and paints. The package is divided in the center by a plastic crayon holder with built-in sharpener. The hexagon shape crayon provides for a firm yet comfortable relaxed grip and prevents the crayon from rolling on table or desk. Your dealer or variety store will have this new "64" package.

**SAY YOU SAW IT
IN SCHOOL ARTS**



Linoleum Cutters, Water Soluble and Oil Inks

- Low cost, excellent quality
- Hand ground steel cutters
- High quality pigment ink with many extra uses

Write for FREE lesson plans. Ask your school supply house for . . .

"SPEEDBALL"

Sponsors of National Scholastic Block Printing Awards

Just Off the Press!

OUR 1959

"BLUE BOOK" CATALOG
of Art and Craft
Materials
and Miscellaneous School
Supplies and Equipment

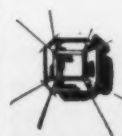
Write for a Copy

No Charge

No Obligation

PRACTICAL DRAWING COMPANY
BOX 5388 DALLAS 22, TEXAS

We pay transportation charges on orders of any amount going into Southwestern States and on orders of \$50.00 or more going into any other State except Alaska.



**Select Your Own
PRECIOUS STONES**

Inspiring collections sent on 30 day approval. Pay only for what you keep. Expertly cut and polished Amethyst, topaz, jade, etc. For rings, bracelets, pendants, earrings. WRITE TODAY! 50¢ and UP

JOHN J. BARRY CO. Dept. A, P.O. Box 15
DETROIT 31, MICH.
IMPORTERS OF PRECIOUS STONES

UNEQUALLED...

• IN A CLASS BY ITSELF •

ORPI

ARTISTS' PERMANENT OIL COLORS

America's first and still America's finest popular priced oil colors... Favored by students and professionals alike for their brilliance, permanence, consistency and brushing quality.

Orpi Oil Colors are the first choice of the discriminating artist who must have quality at a reasonable price. Prices start at 50c.



Write for color chart and price list

TALENS & SON INC., UNION, N. J.

CERAMICS, MOSAIC,
COPPER ENAMELING

YOUR COMPLETE SOURCE
OF MATERIALS & EQUIPMENT

New large discounts to schools

NEW fully illustrated 1958
INSTRUCTIVE CATALOG
FREE if requested on school letterhead
(OTHERS 25c)

TEPPING STUDIO SUPPLY CO.

PROFESSIONAL STAFF

3517C RIVERSIDE DRIVE, DAYTON 5, OHIO

CURIOSA FOR CRAFTS AND JEWELRY MAKING

thunder eggs * glyptic gems * glass eyes * fish beads * black sapphires * lapidary rough * shark's teeth * scarabs and aleppo stones * baroque pearls * giant porcupine quills * ivory skulls * nauch dancer's balls * coral branches * ebony * coco-bolo * lignum vitae * elephant ivory * buffalo horn * precious nacre * lapis lazuli * chrysocolla * tourmalines * hundreds of stones and exotic things * all orders filled and shipped immediately



findings * tools * supplies
all at amazingly low prices

Send 25¢ for Fascinating Catalog

sam kramer

Dept. 5A, 29 W. 8th Street, New York 11, N.Y.

O. HOMMEL

has a
complete
selection of

- UNDERGLAZE COLORS
- GLAZE STAINS
- PREPARED GLAZES

- ENGOBE STAINS
- OVERGLAZE COLORS
- UNDERGLAZE PENCILS and CRAYONS

to add
beauty
to your
ceramic art
projects!

Use O. Hommel diversified colors, stains and glazes. They will always give true, lasting solid colors or tints.

FREE HOMMEL
CATALOG

Write TODAY for your
fully illustrated copy
and free technical in-
formation.

"The World's Most Complete Ceramic Supplier"

THE O. HOMMEL CO.

Pittsburgh 30, Pennsylvania

WEST COAST—4747 E. 49TH ST., LOS ANGELES

Teach Hand Weaving

A FASCINATING CRAFT FOR BOYS AND GIRLS

Order Lily's Loom Kit and teach your students to weave quickly and easily. The kit contains everything you need to start weaving—a loom warped with sufficient yarn to make a luncheon set, directions, shuttles, warping pegs and reed hook.

Complete kit only **\$18.75** postpaid

This Inkle Loom is yours for \$7.50—Order several, complete with 75 tied heddles, shuttles and instruction book containing a variety of patterns. Teach Inkle Weaving to classes and groups—weave multi-colored belts, drawstrings, braids, galloways. Price each **\$7.50** postpaid

A LARGE AND COMPLETE STOCK OF HANDWEAVING YARNS AND SUPPLIES available for prompt shipments in quantities to suit your needs. Send for FREE catalog and price list

THE HANDWEAVER'S HEADQUARTERS LILY MILLS COMPANY Dept. HWSA Shelby, N.C.

SCHOOLINE KILNS by Harrop

- All-New Designs
- For Class-Room and Laboratory
- Controlled Firing
- Underwriters' Approved



New Underwriters' Approved kilns incorporate all features proven most useful in school and laboratory work. Each of 3 heating circuits (for low, medium, high speeds) gives fully even heat distribution and close temperature control . . . MR series for Cone 04 (2000° F.), MRH series for Cone 8 (2300° F.). Clean design with no protruding switches or other equipment . . . outside dimensions in table below are maximum clearances needed. Full yoke door cannot sag or bend out of alignment.

Automatic temperature controlling system available. Eliminates all manual control . . . completely safe to start firing at end of day with no further attention, no worry about over-firing. Automatic control also makes it easy to reproduce same firing treatment time after time . . . assures consistently high quality ware.

	MR-14C MRH-14C	MR-18C MRH-18C
Firing Chamber		
Width	14	18
Depth	14	18
Height	15	19
Cu. Ft.	1.7	3.5
Outside Dimensions		
Width	31½	38
Depth	28½	34
Height	59½	65½

Write for complete information on all Harrop "Schooline" kilns . . . Top-Loading and Side-Loading models, bench or floor, metallic or non-metallic resistors. Also available are Harrop glazes, under-glazes, clays, plaster, kiln furniture and supplies.

Harrop Electric Furnace Division

OF HARROP CERAMIC SERVICE CO.
Dept. 5, 3470 E. Fifth Ave., Columbus 19, Ohio



offer Teachers and Students

- 3 TYPES OF EASY-TO-USE UNDERGLAZES
"Smooth, intermixable, water-soluble colors"
- 24 TYPES OF BEAUTIFUL INTERMIXABLE GLAZES
"Innumerable glaze combinations"
- 7 TYPES OF EXCELLENT CLEAR GLAZES
"Glossy to satin smooth clear matt finishes"

Write for complete information on Ceramichrome's brush-on one-fire ceramic colors and glazes that are the solution to promoting a more balanced and successful school ceramic art program.

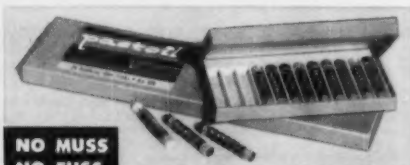
CERAMICHOME LABORATORIES, School Dept. SA-2
2111 West Slauson Ave., Los Angeles 47, Calif.



ASSURED QUALITY TESTED FOR NON-TOXICITY

This "Certified Products" seal insures that products bearing it are subject to the testing procedures established by
**THE CRAYON, WATER COLOR AND CRAFT
INSTITUTE, INC.**

420 Lexington Avenue, New York 17, New York



**NO MUSS
NO FUSS
NO RUB-OFF**

A remarkable new art medium, combining the brilliance and convenience of PASTELS with the depth and solidity of OIL COLORS



IDEAL FOR SCHOOLS
Easy to handle, low in cost, 5 sizes of sets, from 60¢ to \$3.50

Use like pastels but with great freedom in individual methods of handling. Get light, delicate effects or bold, heavy masses of color. They work quickly and smoothly, can be blended on the paper with fingers or paper stumps. Pastils do not dust or chalk, so fixatives are not needed. The sticks are non-brittle, will not easily break when applied with pressure. Colors are exceptionally brilliant.

INTRODUCTORY OFFER: Send 25¢ in coin with this ad for regular 60¢ boxed set of 12 Pastils, 12 colors.

PERMANENT PIGMENTS, INC.
2700 HIGHLAND AVENUE, CINCINNATI 12, OHIO

O-P Craft

7th O-P CRAFT CO.

Basic Crafts for Design-
Decorators.
Write for Catalog
SANDUSKY, OHIO

LETTERS

A Nice Christmas Letter We received many cards at Christmastime, some of them from readers we have never met. One of the very nicest letters came from a teacher whom we will not name because we would not want to embarrass her. May we share it?

"I read your editorial, entitled 'Love Them and Lead Them,' and I was so impressed that I decided to share my reaction to it with you. I have always felt this way about teaching, but too often I hesitated to express my opinions because other teachers felt otherwise. I dearly love the little ones that I teach. Very often I look into the face of a troubled, so-called naughty child, and I wonder what fears lie hidden and what burdens he carries to school within his heart. Or, I've wondered about the child who is labeled lazy or slovenly. Perhaps he was literally shoved out of the door with little or no breakfast or no clean clothes to put on. What a chore it must be for such as he to lift his head high and have the energy to compete.

"Too often, all the child gets is disdain and nagging from a thoughtless teacher. How wonderful it would be if he could come to school to a friend, to someone warm and loving instead of someone set apart. I have always felt that before a child can learn he must feel secure and adequate. He must find help when he seeks it. Never in my twelve years of teaching have I had a real discipline problem. You expressed the thought very well when you said that too many teachers go out of their way to prove they are not human.

"When I entered your craft class last year I, too, was searching for a feeling of security. I had just gone through a very difficult period of my life. I lost my mother, from whom I had never been separated, and my husband suffered a coronary thrombosis and was on the brink of death for thirteen weeks. I was on the verge of a nervous collapse, and were I to have had an instructor who pressured me I would have realized very little from the course. However, I left your course refreshed in mind and body and also with a pride in the skills I had mastered. I often wonder how many times this is paralleled in a child's life, and when he needs a friend how often a teacher gives nothing of herself to help that child over a few bumps."

The writer concluded with a poem she wrote in her first year of teaching. Some day we hope to share it with you. Now, why have I quoted this very personal letter in this column? I guess it is because editors, as well as teachers, need to have a lift once in a while. And the need may be double when one is both editor and teacher. At any rate, I could have received no nicer gift from anyone at Christmas. It makes me think I should find the time to write letters to all the people who have helped me along. Every day would be Christmas, if each of us would simply thank those who help us daily.

Dr. Julia Schwartz is associate professor, Arts Education Department, Florida State University, Tallahassee, Florida.

beginning teacher

Valentines need not be doilies

"Children these days just don't think for themselves and, furthermore, they don't appreciate anything much either," was the comment made by a 6th grade classroom teacher clearly disturbed by behavior of her children in their seeming indifference to things in general. This evaluation came as somewhat of a shock to the writer for this same teacher had observed some weeks earlier, "My children do not want to make valentines but prefer to get 'bought' ones." She had said, "In fact, I don't much blame them. You know the valentines they make look so cheap. The ones they buy are so cute; they are better for they are more realistic and not so clumsy or flat-looking as the homemade ones. I don't even encourage the children to take the time to make their own valentines or Mother's Day or Christmas cards anymore."

It is obvious that this teacher sees no connection at all between the kind of classroom visual art experience she reports she is not providing for her eleven-year-olds and the values they are exhibiting in situations wherein it is necessary for them to make important choices. On the one hand, this teacher thinks the children conform too much and that they are insensitive in ways in which it is important to be sensitive. On the other hand, she actively encourages them to reject their own personally expressive valentine creations in favor of the slick stereotyped mass-produced product purchasable at any dime store.

It is the "cute" and the "realistic" in preference to the sincere and honest efforts of the youngsters be they "clumsy" or "flat-looking" which the teacher mistakenly prefers. She is missing the whole point of the creative process in visual art experience by placing all of the emphasis upon the end product with none of her attention being directed at helping the children to make more valid choices as they work in shaping and organizing their materials in terms of their objective: the best valentine they can possibly produce and to get a thrill out of making it for someone. She makes matters even worse by using as the basis for her judgment of the children's valentines nondevelopmental, adult-stereotypical standards.

By her very actions this classroom teacher is actually helping the children to remain insensitive and indifferent to

their surroundings and to each other, and, what is most important, insensitive to qualities of their own being. She is making it impossible for them to remain independent of the opinions of others and is contributing to their lack of self-respect, self-worth and self-confidence.

"Valentine for Mother," designed by nine-year-old student.



Readers are invited to send comments on this page, as well as subjects for future discussion, directly to Dr. Schwartz.

DO IT YOURSELF *Mosaics*

150 colors to choose from in ceramic glass and porcelain Italian tiles. Our illustrated catalog suggests creative art activities. School discounts on bulk orders.

FREE

SEND FOR
ILLUSTRATED
IDEA CATALOG

FOR ENAMELISTS!



Kiln and Hundreds of Projects
in our ENAMEL-ON-COPPER
IDEA BOOK

- New Ideas for Copper and Complete Jewelry Findings for Ceramists.
- Many new Classroom Activities.

FREE! Your Idea Book and Kiln Information will be rushed to you.

The Copper Shop Division

IMMERMAN & SONS

Dept. MC-31 • 1924 Euclid Ave. • Cleveland 15, Ohio



FRESCO POWDER TEMPERA COLORS

Mixes
Instantly!
Made with
water-dispersable
pigments
all colors

LOW COST
BRILLIANT
NON-TOXIC

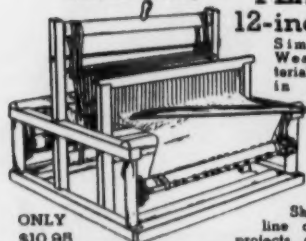
75¢ LIST

1 lb. containers with pouring spout
Write for free bulletin

RICH ART COLOR CO.

31 WEST 21st STREET NEW YORK 10, N.Y.

ORDER today a **PEACOCK**



12-inch Loom

Simple, sturdy.
Weaves any ma-
terial. Widely used
in schools and
homes.

**WRITE
FOR
FREE
CATALOG**

ONLY
\$10.95

F.O.B. Waupun, Wis.

THE HANDCRAFTERS

Makers and distributors of unusual craft supplies

Showing complete
line of original craft
projects and materials in
stock for quick shipment.

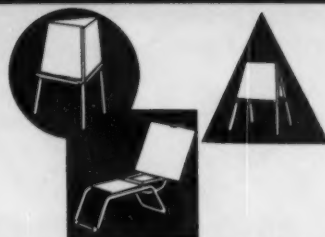
BIG ILLUSTRATED CATALOG FREE TO TEACHERS

● **LEATHERCRAFT**
CATALOG. Make leather purses, belts, billfolds

● **METALCRAFT**
CATALOG. Make aluminum, copper, foil pieces

J.C. LARSON CO. Dept. 8410, 820 S. Tripp Ave., Chicago, Ill.

new concepts in **easels** for children and adults



**FOR ELEMENTARY SCHOOLS
FOR HIGH SCHOOL
COLLEGE AND ART SCHOOL**

write for catalogue

easel seat

**9 SAINT JAMES PLACE
GLEN COVE NEW YORK**

MINNESOTA MULTI-USE LOOM



For those who want more looms than can be accommodated in the available space the Minnesota Loom serves their purpose. Two or more pieces can be woven interchangeably on this loom either by one person alone or by different persons.

HILMA BERGLUND

1171 N. Snelling Ave. St. Paul 13, Minn.

12 Rare Jungle BUTTERFLIES

A dozen vivid butterflies from tropical jungles, ready to mount or to use in handcrafts, decorating, etc. Fascinating for nature-lovers and students of all ages. Beautiful specimens up to 3" across. Processed to lie flat. Six sets, \$5.00

\$1.00

POSTPAID



12 ALL DIFFERENT, ONLY \$1.00 POSTPAID

We ship within 24 hours.

CURIO HOUSE

Box 514, G.P.O.

Westwood, New Jersey

**SAY YOU SAW IT
IN SCHOOL ARTS**

ART FILMS

Over a period of time most of us have had a glimpse of pure joy on film, we have seen some of Charles Eames' films. Possibly you saw my favorite, "Blacktop," one of the most exciting graphic realizations of musical themes that you can find. The music is the Goldberg Variations played by Wanda Landowska. This in itself is enough to test the inventive quality of any graphic artist. Eames rises to the challenge with the sure brilliance that is the core of all of his work. Using a macadam schoolyard and the patterns made by soapsuds as they wash across this black texture, he crystallizes in visual image the sheer beauty of the music. This film can be used on almost any level.

Eames' films are available from different sources. There is no one source of supply. I will list the ones I know. The largest group is available from the Museum of Modern Art Film Library; their collection includes "House," a short film based on the visual image of his own house, "Textile and Ornamental Arts of India," "Communication Primer," "Blacktop" and "Parade."

A new film made for the International Business Machine Corporation, "The Information Machine" (10 minutes in color), is an animated film. The drawings for this film were done by Dolores Cannata with a fine musical score by Elmer Bernstein. This picture was designed and directed by Charles and Ray Eames. The basic ideas of the film show the sprightly, inventive Eames mind at work. Most people would be fascinated by the form, light and shapes of the machine involved. This would have resulted in a rather cold film. To take the opposite attack and do most of it in animation has resulted in a gay humanization of these machines. This film is available from I.B.M. Information Department, 590 Madison Avenue, New York City.

Thomas Larkin, who reviews art films for our readers, is assistant professor of art and art education, University of Michigan. Address: 143 College of Architecture and Design, University of Michigan, Ann Arbor.

Ralph G. Beelke

Dr. Ralph G. Beelke is Executive Secretary, National Art Education Association, N.E.A. Building, Washington, D.C.

The Moderns and Their World, introduction by Sir John Rothenstein, Philosophical Library, New York, 1958, 96 pages, price \$12.00. The paintings reproduced in this book were selected to give a representative sample of modern paintings from the time of Cézanne to the present, and to illustrate the most significant movements of modern painting. The book has 96 plates, 48 of which are color reproductions. The introduction, by the director of the Tate Gallery, presents the thesis that "there is no organic development of modern painting according to some immanent inner logic . . . ; there are (only) the works of a succession of highly gifted and original painters . . . the self-expressions of individuals for whom the realization of the personal vision is among their highest rights and duties as artists." Biographical notes on the painters are included as well as notes on the size and location of the paintings reproduced. While many of the paintings will be familiar, there are some new ones for American readers, particularly those by lesser known British painters.

A Handbook for the Amateur Theatre, by Peter Cotes, published by Philosophical Library, New York, 424 pages, price \$12.50. This book deals quite thoroughly with all aspects of the theatre but gives particular emphasis to the workings of the amateur group. Of special interest to art teachers will be the chapters on design (settings and costumes) and set building. Because it is written primarily for a British audience, much of the book deals with information and suggestions peculiar to England. However, there is still much of value to anyone interested in theatre.

The Golden Number, by M. Borissavlievitch, published by Philosophical Library, New York, 1958, 91 pages, price \$4.50. To those who have taken time and energy to investigate some of the many attempts to relate mathematics and art and to make "beauty" scientific, this book will have a particular value for it presents a new point of view. Unlike the explanations of Hambidge, Jacobs and others which deal with painting as well as architecture, this book is concerned only with buildings and with a "science of aesthetics for architecture." The approach is an aesthetic one rather than a mathematical one and it is here that the author differs from the others who have considered the mathematics of art. The author does not propose a set of rules and laws to be followed in the production of a work of art, but provides a set of laws by which the results of artistic expression can be evaluated. The author recognizes the need for expression based upon imagination and artistic feeling and suggests his

principles only as a means to explain the *why* of success or the lack of success. This is a refreshing approach to an old dispute and should be of interest to those who have not closed their minds to the problem entirely.

Art for You and Me, by Sister Mary Joanne, S.N.D., published by the Gregorian Institute Press, Toledo, Ohio, 1958, 102 pages, price \$2.50. This loose-leaf volume, Book I of a projected three-volume study on art appreciation, is intended to present "basic Christian social living relationships through art." Section I considers "Basic Relationships Through Art" to God, the Church, to our Neighbor, to Nature and to the Self. Section II discusses the art elements and design principles. Section III consists of a glossary and bibliography. If one could overlook those portions of this book which related art concepts to the theology of the Catholic Church, it would be difficult to distinguish the "art material" from that found in many other art books. Even if one is not familiar with the "four causes" of St. Thomas Aquinas, for example, the discussion of theme will have a familiar ring. The unique feature of this book is its workbook format. A set of pictures to be pasted in the book in appropriate places, space left for the user to make notes and comments, and suggestions for participating problems, some of which are to be done in the book, encourage a personal involvement. For books on art appreciation this approach is unusual and one wishes it was used more often. An **Art History Chart**, by the same author and providing a graphic survey of art history is also available for 90 cents.

Designer's Drawloom, by Alice Hindson, published by Charles T. Branford Co., Boston, Mass., 1958, 236 pages, price \$5.95. A textbook on the use of the shaft drawloom and the methods for making repeat patterns on it. The introductory chapters give the basic characteristics of drawloom weaving while others discuss the principles of pattern planning, spontaneous pattern weaving, raw materials and equipment and the study of fabrics. A glossary and annotated bibliography conclude the book.

Dictionary of European Art, by Emerich Schaffran, published by Philosophical Library, New York, 1958, 283 pages, price \$4.75. Brief discussions of major styles of European art serve as an introduction to a detailed listing of terms and artists.

Any book reviewed in *School Arts* may be ordered through the Creative Hands Bookshop, 192 Printers Building, Worcester 8, Massachusetts.

new teaching aids

BOSTON MUSEUM SCHOOL

A DEPARTMENT OF THE MUSEUM OF FINE ARTS

Est. 1876. Professional training with diploma course in Drawing, Graphic Arts, Painting, Sculpture, Jewelry, Silversmithing, Commercial Arts, Ceramics. 16 Traveling Scholarships. Unlimited contact with Museum collection. B.F.A. and B.S. in Ed. degrees granted by Tufts University. Catalog.

EVENING SCHOOL certificate course in Graphic Arts, Sculpture, Ceramics, Painting. Special courses in Calligraphy, Lettering, Interior Design and Water Color.

RUSSELL T. SMITH, Head of School
330 The Fenway Boston, Mass.

MOORE INSTITUTE OF ART

The Professional College for Career Women. 115th year. Internationally known artist-instructors. Fully accredited 4-year B.F.A. or B.S. degree programs. Advertising Art, Art Education, Fashion Design and Illustration, Interior and Textile Design, Painting and Illustration. Day and Saturday classes. New campus Sept. 1959. Catalog.

1329 N. Broad St., Philadelphia 21, Pa.



WILHOLD GLU-BIRD GLUE

The Very Best for Every SCHOOL USE

WILHOLD PRODUCTS CO.

Los Angeles 31 Chicago 44

CERAMIC GLAZING MADE EASY

Use the ideas these books bring you to make your glazing easier and sparkle with originality

ART GLAZING TECHNIQUES
(50 pages, plastic binding) Price \$3.00

Ten complete glazing methods and techniques—fully explained in progressive steps.

TEACHERS' GUIDEBOOK

(28 pages, staple binding) Price \$2.00

Gives basic planning ideas for each glazing technique. Offers complete correlation with companion book—ART GLAZING TECHNIQUES.

CERAMIC ENTERPRISES

322 Riverbank Wyandotte, Mich.

TEACHERS' BUYING GUIDE



Fully illustrated with hundreds of art and craft items to help make your teaching easier—results more exciting. You're sure to find a wide variety of items to fit your every need. Write today for Teachers' Buying Guide—free to teachers.

DWINNELL ART & CRAFT SUPPLY
Dept. SA-29 2312 National Road Wheeling, W. Va.

NEW MODERN HANDICRAFTS

A lovely new line of original reedcraft activities from Sweden—ceramic tile in three sizes at terrific savings—de luxe chenille craft—stick craft—leathercraft. Many, many inexpensive craft activities.

Send for free brochure.

S. & S. Leather Company, Colchester, Conn.

ADVERTISERS

FEBRUARY 1959

Advance Crayon and Color Corp.	46
American Art Clay Company	34
American Crayon Company	Cover IV
Art Crayon Company	41
Arts & Crafts Distributors, Inc.	54
John J. Barry Company	48
Ernest W. Beissinger	54
Hilma Berglund	52
Charles Beseler Company	48
Binney & Smith, Inc.	Cover II
Boston Museum School	4
Bradley, Milton Company	54
Ceramic Enterprises	50
Ceramichrome Laboratories	50
Cleveland Crafts Company	54
Crafttools, Inc.	47
Crayon, Water Color and Craft Institute, Inc.	50
Curio House	52
Cushman & Denison Mfg. Company	46
Davis Publications, Inc.	Cover III
B. F. Drakenfeld & Co., Inc.	47
Dresel Manufacturing Company	54
Dwinnell Art & Craft Supply	52
Easel Seat	47
Floquil Products	47
M. Grumbacher, Inc.	47
J. L. Hammett Company	54
Handcrafters, The	52
Harpor Ceramic Service Company	50
Higgins Ink Company	43
O. Hommel Company, The	49
C. Howard Hunt Pen Company	34, 48
Iddings Paint Co., Inc.	54
Immerman & Sons	54
International Crafts, Inc.	54
Jersey Craftsman Company	49
Studio of Sam Kramer	43
Lamp Products	52
J. C. Larson Company	54
Lewis Artist Supply Company	49
Lily Mills Company	54
Moore Institute of Art	50
O. P. Craft Co., Inc.	50
Permanent Pigments, Inc.	48
Practical Drawing Company	52
Ruth Art Color Company	54
S. & S. Leather Company	54
Sax Bros., Inc.	3
E. H. Sheldon Equipment Company	49
Talens & Son, Inc.	48
Tepping Studio Supply Company	54
Thayer & Chandler	48
Thomas C. Thompson Company	42
Venus Pen & Pencil Corp.	43
F. Weber Company	42
Weber Costello Company	54
Wilhold Products Company	54

WORKS LIKE MAGIC!

Student Art

LIQUID TEMPERA COLORS

NON-POISONOUS COLORS FOR USE IN SCHOOLS.

Write for Circular.

IDDINGS PAINT CO., INC.

WATER PAINT SPECIALISTS
LONG ISLAND CITY 1, NEW YORK
LOS ANGELES 23, CALIFORNIA

TOOLS and SUPPLIES

that will help you in teaching Arts and Crafts

Our illustrated Catalog describes and prices all the necessary tools and supplies you'll need. For schools—homes—shop crafts—art courses. Lenses, wearing materials and instruction aids are also listed. You can enjoy making hundreds of useful, attractive articles in wood, metal, leather, pottery, reed, etc.

J. L. HAMMETT CO.
264 Main St., Cambridge, Mass.

SEND FOR YOUR FREE CATALOG NOW

THIS YEAR TRY SOMETHING NEW in Classroom Activities

New activities from Cleveland Crafts are sure to keep art class enthusiasm and interest high. Don't wait . . .

Write for our **FREE 1959 Catalog of HANDICRAFT SUPPLIES and IDEAS**

CLEVELAND CRAFTS CO.

4707-C Euclid Ave. 5832 Chicago Ave. 4 East 16th St.
Cleveland 3, Ohio Chicago 51, Ill. New York 3, N.Y.



MOSAIC TILE

FREE COLOR CATALOG

Lists over 95 different imported mosaic tiles in ceramic, glass and porcelain. Also rare Byzantine smalti available. If \$1 remitted, 32-page book ART & APPLICATION OF MOSAIC TILE will also be sent, post-paid.

Generous school discounts on bulk orders.

Order today from **International Crafts, Inc.**
Dept. K-2, 325 W. Huron, Chicago 10, Illinois



"PRECIOUS STONES FOR PRECIOUS LITTLE"

Quality stones specially suited for classroom use sent on 30-day approval. No obligation to any purchase. For better buys in stones and unequalled service write to:

ERNEST W. BEISSINGER

Importer of Precious Stones

417 Clark Building Pittsburgh 22, Pa.



What's Your Interest?

ALL-CRAFTS "SUPER-MART" CATALOG-102 Big Pages!

Prompt service on every craft need. Leathercraft, Metalcrafts, Enameling, Mosaic Tile, Woodware, Ceramics, Art Supplies, many others. Since 1910. Write for free catalog. Dept. SA-2.
SAX BROS., Inc. 1111 N. 3rd St., Milwaukee 3, Wis.

FREE to all Art Educators

THE NEW 1959 EDITION—160 PAGES

ARTS & CRAFTS CATALOG

"The Encyclopedia of Creative Art Materials"

If you have not already received your copy write us now!

ARTS & CRAFTS DISTRIBUTORS, INC.
9520 Baltimore Ave. College Park, Maryland



"Palette Patter" keeps you posted on the latest and best in artist materials and equipment. Get your free monthly copy.

Write to—Dept. SA-2



THAYER & CHANDLER

for the particular artist

SEND FOR CATALOG

Number 52

210 WEST VAN BUREN STREET, CHICAGO 7, ILLINOIS

Alice A. D. Baumgarner

Address questions to Dr. Alice Baumgarner, State Director of Arts Education, State House, Concord, New Hampshire.

I struggled with silk screening on an elementary level. I cut stencils from newsprint, stencil paper and various papers, then I taped it into a frame. I used a commercial frame as I had their set. For paint, I used material they provided—thick tempera. Always, no matter what, the color would bleed around edges of my stencil. We wanted to use it for 6th grade graduation programs. Is there a recommended paint or tusche to use in grade schools? I'll very much appreciate help in these areas. I always enjoy School Arts Magazine—very wonderful articles as well as ideas from others. What does it require to send in ideas that have been successful in one school? Must pictures accompany? If so, what kind? Michigan.

Your stenciling has all of the right elements for success. We have found that both the amount and the consistency of the paint must be considered. When you use an object and paint the area around it, try putting the paint on the cloth directly over the design. Then with your rubber or cardboard squeegee, push the paint from the center toward the edges. The moisture of the paint will cause the paper design to adhere to the cloth as you carefully pick up the frame. Be sure that the cloth is stretched tightly and fastened so that it cannot slip. You can use a piece of old newspaper just the size of the outer edge of your frame. Cut out your design. Lay the frame over this rectangle of paper. Put a little paint near the edge of the frame. Be sure to hold the frame firmly against the surface that is to receive the design. Work from the edges toward the center. Try stroking in only one direction, from the outside edge of the frame toward the center. For further assurance that the paper stencil sticks to the cloth, try moistening the paper and cloth before you start to print. The paper does not need to be taped to the frame.

You might draw your design onto tightly stretched organdy with a good wax crayon. Use care to see that the weave of the cloth is filled with the wax of the crayon so that the paint will be repelled. Then proceed as before. Avoid overrubbing. Most of the wax crayon can be washed from the cloth by holding the frame under hot running water, or a little turpentine will speed cleanup. For a discussion on a professional level, see "Mitography," by Albert Kosloff, published in 1952 by Bruce Publishing Company, Milwaukee. A book that children of eight years and up will enjoy is "Paper, Ink and Roller," by Harvey Weiss, published in 1958 by Wm. R. Scott, Inc., New York.

The editors are always interested in good ideas. Why not

questions you ask

try writing up your art experiences in the classroom and sending this to Dr. Winebrenner? He will advise you and answer your specific questions. In an art magazine, pictures are most important; 5- by 7-inch or 8- by 10-inch glossies are best. Sometimes a few examples of children's art expressions might accompany your article. You might select several issues of this magazine that appealed especially to you. Try to decide what it is that made these meaningful, list the principles you find, then use them. Write to the editor for a folder of suggestions for writers available upon request. Address him at 400 Woodland Drive, Buffalo, New York.

Would you advise a homeroom teacher regarding special art programs, involving possibly simple looms, weaving devices, pottery sets, etc., for the mentally retarded child with poor coordination? Connecticut.

There is a recognizable difference between mentally retarded and the slow learner. But perhaps the material that comes closest to touching your problem was written by Dr. and Mrs. Charles Gaitskell: "Art Education for Slow Learners," Charles A. Bennett Company, Inc., Peoria, Illinois, 1953. The authors state that "The intelligence of the individuals within the group studied varied from idiot to an I.Q. of 89. The majority of cases, however, lay within the range of intelligence which could benefit with varying degrees of success from classroom instruction." If you feel that your group of pupils could be placed within this definition, then you might seek out this book.

Each child in your group will find his pleasure in achievement in his own way. Some will be comforted through the routine setup of weaving, others will want to paint, and paint, and paint. Others may achieve through arranging bits of colored paper in a background. No one would presume to list activities and say—Do this and only this. A book such as "Arts and Crafts for Elementary Teachers," by Wankelman, Richards and Wigg, published by Wm. C. Brown Company, Dubuque, Iowa, 1954, will give you clear directions for many processes and suggestions for improvising. Try some yourself. Study your children, their needs and reactions. Aim to work from need, with purpose. Resist the urge to try everything with your pupils. Rather, if you're stimulating them to use clay let them use this frequently enough so that they can find many possibilities in this material. When I was earning certification for teaching the orthogenic backward, the pupils I was working with quite regularly chose among painting, clay modeling, weaving on a two-harness floor loom, or constructing at the wood bench.

Nine Red Stripes

EDITORIAL



Have you ever wondered how many red stripes there are on a candy cane? Or how many stripes on a barber pole? Or how many stripes on a zebra? Well, I have been doing a little research on the number of stripes on a candy cane ever since December. It began when a second grade classroom teacher was handed a pattern for candy canes her children were to make to decorate the classroom windows for Christmas. Her classroom windows faced the front of the building, and the committee had decided (as they have for years in the past) that the windows on the front side must look their very best. The only

way they could figure out to achieve the desired result was to have teachers make patterns to be carried out by the children. Rooms in this section of the building were assigned candy canes. Now, it so happens that one of the teachers didn't think too highly of this pattern business, and when she passed out the patterns in her second grade she neglected to give them all of the instructions. For one thing, she forgot to tell them the correct number of red stripes, and a dreadful thing happened. *Really* dreadful. Believe me it *was* dreadful.

You guessed it. This particular second grade made *nine* red stripes in their candy canes instead of eleven. She asked me what to do about it, and I suggested that she wire the principal (who was away on one of those convention trips) to see if it was all right for her second grade to have *nine* red stripes instead of eleven. Well, she didn't like to bother the principal, so her children made the candy canes over again with the "right" number of stripes. Evidently, she felt that the committee would be displeased if there were *nine red stripes* instead of eleven red stripes. My advice was to leave the nine red stripes as they were, and to have her children invite their parents to come and see the room that was different from all the others because it had candy canes with *nine red stripes* instead of eleven red stripes. Anyway, this started my research on the number of red stripes on a candy cane. Believe it or not, I found that there is no standard number of stripes on a candy cane. Furthermore, some canes have wide stripes, some have narrow stripes, and some have both wide stripes and narrow stripes, alternating or repeating in a variety of ways. This gave me an idea for this editorial. I hope my friends won't mind, for an editor has to get an idea somewhere, and it might as well be from his friends.

If we must have canned decorations for schoolroom windows at Christmastime, why not have them built into the building? There could be a series of sliding panels above each of the windows; a set of candy canes, Christmas trees, and candles for the Christmas season; a set of tulips for Easter; a set of turkeys for Thanksgiving, and so on. They could be made of stained glass and last as long as the building. This isn't exactly novel. I heard of a fellow who has an artificial Christmas tree, all decorated with bulbs and lights. When the season is over he merely pulls a plastic bag over the top and puts the tree away, all decorated, until the next year. Well, space is running out and we must get to the point of the editorial. All my editorials have a point.

Schools belong to the children. Let's leave it that way. If there must be decorations, and if there must be some kind of a plan, why not turn it over to the children? Let them decide how many stripes go on a candy cane, or whether to use candy canes at all, or whether to let the light come in the windows and place their decorations elsewhere. The world will not come to an end if everything doesn't "match." Schools are made for learning, and the amount of learning that takes place for any particular child depends upon how much of himself he puts into the experience. What if the children do slop up the place a bit in the process of learning? And what if their results are not adult-like? Is it bad for a child to have an idea of his own, an idea that is different from all others? Seems to me that schools are supposed to develop this sort of thing. The world is full of conformists and imitators, and there is a desperate need for creative thinkers, in science, in social relations, in the arts. We can't teach a child to swim if we keep him out of the water. And we can't do his thinking for him if we want him to learn to think. A fellow's creative muscles need exercise just like his physical ones, and nobody but nobody can do his exercising for him. Not even his teacher.

I'm going to be real omery and say that I would rather see a school all plastered up with the creative work of the children who attend it than with the finest of masterpieces in the finest of gold frames. Teachers should not be ashamed of what children do in the process of learning, and they should be able to communicate this idea to parents and the community. I have a sneaking suspicion that parents could get the idea without much trouble, if we worked on it.

D. Kenneth Winebrenner



BOOKS

FOR ART TEACHING IDEAS AND METHODS

COLLAGE AND CONSTRUCTION in Elementary and Junior High Schools by Lois Lord, Chairman, Art Department, The New Lincoln School, New York City. A source of fresh and exciting art activities for teachers to use in helping children express their imaginative ideas. Offers material in four subject areas: Wire Sculpture, Constructions—including mobiles and stabiles, Collage, and Suggestions for Teachers. Emphasis is on simplicity and classroom workability. Many examples of children's work. 112 pages, Size 7 1/2 x 10, Fully illustrated

Circle 1 in coupon Price \$5.95

PAPER SHAPES AND SCULPTURE for school use by M. Grace Johnston, Asst. Supervisor of Elementary Art, Newark, New Jersey. A book of methods, materials and techniques for using paper as a creative art medium in elementary and junior high schools. Especially helpful to classroom and art teachers—grade five through junior high. Helps children quickly learn to use paper with skill and originality. Large photos illustrate finished pieces; drawings and text show processes. 70 pages, Size 8 1/2 x 11, Fully illustrated

Circle 2 in coupon Price \$4.75

EXPLORING PAPIER-MÂCHÉ by Victoria Bedford Betts, formerly, Art Consultant, Binney & Smith Co., New York City. A here's-how book giving ideas and methods for making varied, useful, and exciting things from papier-mâché. Many large photographs (four in full color) and original drawings show finished pieces, processes and techniques. Emphasis is on simplicity and classroom usefulness. Dozens of fresh new forms and designs to stimulate originality. 15 chapters, Size 7 1/2 x 10 1/2, Fully illustrated

Circle 3 in coupon Price \$6.00

MURALS FOR SCHOOLS by Arne W. Randall, Head, Applied Arts Dept., Texas Tech., Lubbock, Texas. A here's-how book for making murals in the classroom. This book of ideas, methods and uses of materials in mural making will be particularly helpful to the classroom and art teacher. It gives suggestions for mural themes; ideas on design, color and arrangement; use of basic media; ideas on planning murals; hints on care and storage of materials. 112 pages, Size 7 1/2 x 10 1/2, Fully illustrated

Circle 4 in coupon Price \$5.95

CREATIVE EXPRESSION WITH CRAYONS by Elise Reid Boylston, formerly, Supervisor of Elementary Art, Atlanta, Georgia. Have you ever wished you had at your finger tips a source of ideas using crayons—new—stimulating—interesting ideas for your classes? This book emphasizes creative art and suggests ways to develop creative leadership. It also gives, with many illustrations and readable text, a wide range of interesting and useful methods of using crayons. 100 pages, Size 7 x 10, Fully illustrated

Circle 7 in coupon Price \$3.95

MASK MAKING, Creative Methods and Techniques by Matthew Baranski, Art Teacher, Buffalo, New York Public Schools. A book for teachers, giving ideas for designing and making masks for all occasions. With many illustrations and readable text, it shows you how to make masks everyone enjoys... the kind with real personalities. Only a few simple tools and inexpensive materials are needed. Ideas for all ages, grade through high. Many sketches and photos. 112 pages, Size 7 1/2 x 10 1/2, Fully illustrated

Circle 5 in coupon Price \$5.00

PAPER SCULPTURE by M. Grace Johnston, Asst. Supervisor of Elementary Art, Newark, New Jersey. Have you tried the fascinating experience of taking a flat sheet of paper and making three-dimensional designs—modern designs that sparkle with originality? You'll find a rich store of ideas in this book. It also gives methods and techniques for cutting, bending, scoring, folding, fastening, and assembling. A stimulating and helpful book. 52 pages, Size 8 1/2 x 11, Fully illustrated

Circle 6 in coupon Price \$3.75

PLANNING AND PRODUCING POSTERS by John deLemos, Art Director, The Latham Foundation, Palo Alto, California. Seventh Printing—1958. School dances, games, contests, shows are a few events that need posters to help promote and enliven the occasion. This book will be an inspiring help to your pupils in creating the right poster for important events. A practical, fully illustrated, stimulating book on media and techniques for making school posters. 60 pages, Size 7 1/2 x 10 1/2, Fully illustrated

Circle 8 in coupon Price \$3.75

MAIL THIS COUPON TODAY!

We'll gladly send any of these books
on 10 days approval.

DAVIS PUBLICATIONS, INC.
192 Printers Bldg., Worcester 8, Massachusetts

Please send book(s) I have circled: 1 2 3 4 5 6 7 8
☐ My payment is enclosed. ☐ Send bill payable in 30 days.

Name _____ PLEASE PRINT

Address _____

City _____ Zone _____ State _____

PRANG® OFFERS A WORLD OF CREAT-ABILITY



It is easy to stage new adventure, more variety and endless enthusiasm for all ages when you build your creative program around "PRANG'S BASICS" . . . so many uses and so little waste!

Write our Educational Department for lively program building ideas. Dept. SA-111



THE AMERICAN CRAYON COMPANY • SANDUSKY OHIO • NEW YORK